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MONITORING  
POVERTY TRENDS  
IN IRELAND:  
RESULTS FROM THE  
2001  
LIVING IN IRELAND  
SURVEY

CHRISTOPHER T. WHELAN  
RICHARD LAYTE, BERTRAND MAÎTRE  
BRENDA GANNON, BRIAN NOLAN,  
DOROTHY WATSON AND  
JAMES WILLIAMS

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# EXECUTIVE SUMMARY

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## Introduction

This study uses data gathered as part of the 2001 Living in Ireland Survey (LIIS) to monitor the evolution of poverty in Ireland. The study is the fourth in a line of reports from The Economic and Social Research Institute which have examined poverty in Ireland using the LIIS data and like previous reports in the series, *inter alia*, provides information on progress toward achieving the targets set out in the National Anti-Poverty Strategy.

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## The Data

The LIIS survey is designed to provide a representative sample of private households in Ireland with the sample drawn from the electoral register using a two-stage stratified random sampling procedure utilising the ESRI's RANSAM system. The LIIS survey for 2001 interviewed 6,521 individuals in 3,662 households, an individual response rate of 93 per cent over the supplemented 2000 survey and a household response rate of 78 per cent. To control for sample attrition and sampling error a complex weighting procedure was adopted which adjusts the data using a large number of household and individual level characteristics and ensures representativeness.

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## Relative Income Poverty

Relative income poverty lines are the most commonly used measure of poverty in research and provide an important measure of long-term trends in the distribution of income. In 2001 we found using mean income poverty lines, that after an initial rise in the proportion of persons in poverty between 1994 and 1998, from 1998 to 2001 this proportion remained close to constant. An examination of median income poverty lines provided a similar story between 1994 and 1998, but a different story thereafter with a clear trend toward increasing poverty being observed at each income line between 1998 and 2001. Consistent with these findings, the measures of the 'income gap' between the incomes of the poor and the poverty line all increased consistently between 1994 and 2001 irrespective of the measure used suggesting that the gap between the poor and non-poor has increased steadily and substantially over time. However, this relative depreciation in the position of the poor actually masks an absolute increase in incomes in real terms for all groups as shown by the large decrease in the proportion of persons under a 'real income' poverty line indexed to prices alone since 1994. This contrast points to the fundamental factors at work over this highly unusual period: unemployment fell very sharply and

substantial real income growth was seen throughout the distribution, including social welfare payments, but these lagged behind income from work and property so social welfare recipients, including the elderly, were more likely to fall below thresholds linked to average income.

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### **The Profile of those Below Relative Income Poverty Lines in 2001**

Analyses of the pattern of the risk of relative income poverty using median income poverty lines showed a striking increase in the proportion of single person households in poverty a group dominated by the elderly and particularly elderly women. This pattern of risk has been developing since 1994, but became particularly acute after 1997 when average incomes and thus the poverty line began to outpace increases in the level of pensions and particularly non-contributory pensions. As well as increases in risk for the elderly there have also been substantial increases in risk for persons in households where the reference person is ill/disabled or on home duties. Those in households where the reference person is unemployed face a high risk of poverty, but due to relatively low national levels of unemployment, continue to decline as a proportion of the poor. The increase in levels of employment from 1994 means that although the risk of poverty for the employed has decreased substantially, this group have become a larger proportion of those below relative income poverty lines alongside the elderly, the ill/disabled and those who are on home duties. This change in the risk profile and composition of the poor reflects the processes already mentioned of increasing real incomes across all groups, but an increase in the gap between the incomes of those in employment and those living on social welfare benefits and pensions.

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### **Poverty Measures Incorporating Non-Monetary Deprivation Indicators**

Relative income poverty measures are a useful indicator of poverty trends but do not, on their own provide a satisfactory measure of exclusion due to lack of resources. This can be rectified if these measures are complemented with measures based on non-monetary 'deprivation', that is the absence of an item or activity through lack of resources. Using a set of eight deprivation items that make up 'basic' deprivation we found a marked decrease in deprivation scores across different household types whether categorised by number of adults and children or labour force status between 1994 and 2001. The proportion of households and individuals in 'consistent poverty', that is the numbers below the relative income poverty line and experiencing basic deprivation also declined sharply between 1994 and 2001 (whether the lines were based on mean or median income). Analyses of the risk of different groups revealed different patterns to that found using relative income poverty alone with single adult households and the elderly less likely to be consistently poor and households with one adult and children facing a particularly high risk. Once again however, elderly women faced a significantly higher risk of consistent poverty than elderly men.



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## Persistent Income Poverty and Deprivation

Previous ESRI monitoring reports have shown the importance of analysing the extent of ‘persistence’ in poverty over time and this approach to monitoring has been given added importance by the adoption in 2001 at the EU summit in Laeken of a persistent poverty measure (poor in the current year and in two of the three previous years) as one of 18 common statistical indicators of social inclusion. Applying the Laeken measure we found that the proportion in persistent poverty in any one year is lower than the proportion measured using a single year, but that the level of persistent income poverty has been rising between 1997 and 2001 with the poor in any one year now more likely also to be persistently poor. Analysing the risks of different groups we find that single person and single parent households are more likely to be persistently poor, which given that these groups are dominated by women and particularly elderly women means that women have a higher risk than men and the elderly a higher risk than the non elderly. We also found that those living in a household with a reference person who is ill/disabled or on home duties also have a very high risk of experiencing persistent poverty.

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## Reassessing the Consistent Poverty Measure

Up to 2001, the set of eight basic deprivation items included in the measure of ‘consistent poverty’ remained unchanged, so it was important to assess whether they were still capturing what would be widely seen as generalised deprivation. This involved looking at the households who would be counted as ‘consistently poor’ if that index were broadened to include certain other items now widely perceived as necessities such as a telephone, central heating and a car. We found that those people identified using the original set of items were still differentiated from both the group who would be defined as poor using the enlarged set and the non-poor. The adoption of the broader index would shift the composition of the poor away from households with children and toward those over age 65 years. The original group remained sharply differentiated both in terms of economic strain and financial satisfaction. This suggests that combining low income with the original basic deprivation indicators continues to identify a set of households experiencing generalised deprivation as a result of prolonged constraints in terms of command over resources.

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## Monitoring Poverty Looking Forward

In recent years levels of deprivation for some of the items used in the consistent poverty measure have become so low that the degree of statistical error associated with the measure now begins to approach the measured proportion. Given this, further monitoring may become problematic unless the sample used is expanded substantially or the measure itself is altered. However, there is also an issue of whether the measure itself now adequately measures poverty. The achievement of low levels of deprivation is a considerable achievement, but poverty as defined in the National

Anti-Poverty Strategy is relative to the current living standards and expectations of society and thus we examined an alternative set of basic deprivation indicators that are more likely to capture key trends in consistent poverty over the next few years. This measure proved an effective tool for following trends since 1994. Given this and in line with other findings in this report we suggest that poverty monitoring over the period to 2007 should recognise the need for a broader focus than the consistent poverty measure alone and incorporate both relative income, persistent income and consistent poverty measures using the amended set.

# 1. INTRODUCTION

In this study we use data gathered as part of the Living in Ireland Survey in 2001 to monitor the evolution of poverty in Ireland. This study is the fourth in a line of reports (Callan *et al.*, 1999a; Layte *et al.*, 2001a; Nolan *et al.*, 2002) from The Economic and Social Research Institute using the Living in Ireland Survey which have sought, among other aims, to monitor progress towards the targets specified in the National Anti-Poverty Strategy set out in 1997 and revised in 2002.

Our objective in this report is to provide an account of trends in poverty during a period of unprecedented economic change and growth. For some time we have argued that understanding poverty requires that we make use of a variety of measures that allow us to consider the extent, depth and persistence of poverty. We have also developed the position that both conceptual considerations and concern for policy relevance requires that we go beyond purely income based measures to develop a multidimensional understanding of poverty. These arguments have a general validity. However, they are of particular importance in the economic circumstances that provide the context for our study. It is precisely in conditions of unprecedented economic growth, and rapid improvement in overall living standards, that different indicators of 'poverty' may appear to suggest two diametrically opposed conclusions and an assessment of the consequences of economic and social change is likely to require a judicious combination of different types of information.

As we shall seek to illustrate in this report, by adopting a multi-dimensional and dynamic perspective on poverty in a period of rapid change, it becomes possible to illustrate, in a rather dramatic fashion, certain arguments which have their origins in the attempt to resolve a paradox that arises when we consider levels of poverty in conventional cross-sectional studies. Earlier ESRI research (Callan, Nolan and Whelan 1993; Whelan *et al.*, 2001; Layte *et al.*, 2001c) has shown that low income is not a reliable measure of exclusion arising from a lack of resources and that many of those who are under an income poverty line will not be deprived. Although current income will give some information about the resources available to a household, this will also be influenced by the extent to which resources have been accumulated or eroded by recent experience. For example, whereas savings from previous periods will help to maintain current levels of consumption during periods of poverty, accumulated debts will undermine this capacity. The extent to which other resources will be available to buffer current living standards

will depend on recent experiences in areas such as the labour market where past unemployment will still impact on one's current risk of income poverty, even if currently employed.

Nolan and Whelan (1996) showed that, although current income had a role in explaining a household's score on the deprivation indices, rather more was explained by longer term indicators of disadvantage such as past unemployment, lower educational qualifications and skills and being manual working class. These findings have been replicated for a number of European countries in Layte *et al.* (2001b). On the other hand, Whelan *et al.* (2003a) showed that as the period over which income was observed lengthened, the relationship between the income measure and the deprivation measure improved, suggesting that persistent income poverty measures and the basic deprivation indices provide information on the same processes of accumulation and erosion that result in the poverty risk that households face in any one year.

Although poverty is always unwelcome, the experience of a short spell is unlikely to seriously impact on quality of life since individuals and households will seek to maintain their living standards either by gaining help from family and friends or by accessing state benefits. However, as the period of poverty increases this becomes more difficult and there is a far greater chance that not only present living standards will be affected, but long-term life chances may be damaged as well. Therefore, to fully understand the nature of poverty we need to see it in a more dynamic context – as the outcome of a process of the accumulation and erosion of resources over time (see Nolan and Whelan, 1996).

Three implications flow from the arguments developed above: First it is clear that the combination of a current income measure with deprivation information is a more effective monitoring tool than using income poverty alone when seeking to measure cross-sectional poverty at a particular point in time. Second, cross-sectional poverty measures should, wherever possible, be complemented with longitudinal measures such as persistent income poverty. Such measures are a useful addition to the monitoring toolbox since they provide information on the long-term experience of low income that can lead to lifestyle deprivation and hardship. Third, we need to understand the processes that lead to low income in both the short and long term. This requires that, as well as identifying particular groups who are at risk of income poverty and deprivation, we also attempt to understand the processes that underlie these risk profiles, as only by doing this can we address the causes as well as the symptoms of low income and poverty. It is this broad approach and focus that underpins the detailed analyses we present in this study.

Guided by this perspective our analyses will proceed as follows. As in previous monitoring poverty reports, after a description of the 2001 Living in Ireland Survey in Chapter 2, this study begins with an analysis of the overall trends in relative poverty in Chapter 3 using different income poverty lines and equivalence scales over the period from 1994 to 2001. In Chapter 4 we then examine the risks of

experiencing relative income poverty associated with various individual and household characteristics such as age and sex, labour force status and household type. This chapter also examines the profile of those under each poverty line to examine whether that population is changing in composition over time.

In Chapter 5 we then turn to the evolution of non-monetary indicators of deprivation and developments in ‘consistent’ poverty, the combination of relative income poverty and a deprivation measure. This chapter also details the profile of risk and incidence associated with the combined measure.

In recent years persistent poverty measures have come to be seen as increasingly important and have been adopted by the European Union as one of the 18 Laeken indicators of social inclusion. In Chapter 6 we apply the EU persistent poverty measure to the Living in Ireland Survey and examine trends between 1997 and 2001 as well as detailing the profile of risk and incidence associated with persistent income poverty.

In Chapter 7 we return to the question posed in previous monitoring poverty reports: are the deprivation indicators being used still adequate to capture generalised deprivation? The chapter examines whether the measure continues to perform adequately and considers an alternative measure based on deprivation items in the European Community Household Panel Study as a possible alternative.

Finally in Chapter 8 we draw our conclusions together and attempt to spell out implications for future attempts to measure poverty.



# 2. THE 2001 WAVE OF THE LIVING IN IRELAND SURVEY

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## 2.1 Introduction

The Living in Ireland Surveys form the Irish component of the European Community Household Panel (ECHP): an EU-wide project, co-ordinated by Eurostat, to conduct harmonised longitudinal surveys dealing with household income and labour situation in the member states. The aim of the ECHP is to produce a fully harmonised dataset providing information on the social situation, financial circumstances and living standards of a panel of households to be followed over several years. The fact that the same set of households is interviewed each year means that it is possible to study changes in the characteristics and circumstances of particular households or individuals over time. The ECHP provides harmonised cross-sectional surveys for each year in which the survey is conducted, as well as longitudinal data, which permits dynamic analysis of changes over time.

The first wave of the ECHP was conducted in 1994, and the same individuals and households were followed each year. The wave conducted in 2001, therefore, was the eighth wave of the survey. Twelve countries participated in 1994, with Austria and Finland joining in 1995 and 1996, respectively.

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## 2.2 The 1994 Living in Ireland Survey

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

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

The sample from the Wave 1 (1994) Living in Ireland survey was followed in subsequent years and re-interviewed. The follow-up rules for the survey meant that new households might be included in each wave where a sample person from Wave 1 moved to another

household. All individuals in the Wave 1 sample were to be followed in Wave 2 and household and individual interviews were to be conducted, as long as the person still lived in a private or collective household within the EU. Table 2.1 summarises the wave-on-wave response rates, from Wave 1 to Wave 8. For detail on the design and implementation of the ECHP data please see Appendix A.

**Table 2.1: Number of Completed Households in Each Wave, Number of Sample Persons in Completed Households and Number Interviewed, Living in Ireland Surveys 1994-2001**

	1994	1995	1996	1997	1998	1999	2000 Cont.	2000 New	Total 2000	2001
<i>Households</i>										
Completed Households	4,048	3,584	3,174	2,945	2,729	2,378	1,952	1,515	3,467	2,865
Non-Response	3,038	794	624	390	394	464	414	1,146	1,560	797
Total Households	7,086	4,378	3,98	3,335	3,123	2,842	2,366	2,661	5,027	3,662
Household Response Rate	57%	82%	84%	88%	87%	84%	83%	57%	69%	78%
Non-Sample	166	98	125	119	94	83	77	159	236	78
<i>Individuals</i>										
N. in Completed Households:	14,585	12,576	10,889	9,952	9,000	7,721	6,276	5,174	11,450	9,131
... followed from first wave	N/A.	12,117	10,241	9,154	8,139	6,908	5,530	0	5,530	4,820
... new since first wave	N/A.	459	648	798	861	813	746	5,174	5,920	4,311
Eligible for Individual Interview (*)	10,418	9,048	7,902	7,255	6,620	5,719	4,745	3,952	8,697	6,996
Number individuals interviewed	9,904	8,531	7,488	6,868	6,324	5,451	4,529	3,527	8,056	6,521
% Individual interviews completed	95%	94%	95%	95%	96%	95%	95%	89%	93%	93%

Note: \* in completed Households.

### 2.3 2000 Sample Supplementation and 2001 Wave of the Living in Ireland Survey

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

The 2001 dataset includes 9,131 individuals, 4,820 of whom were followed from 1994 and 4,311 who joined the sample since then – most of them being added when the sample was supplemented in 2000. The response rate at the household level was 78 per cent, a lower completion rate than had been achieved throughout the 1990s. The same factors that posed a challenge to fieldwork in 2000 affected the process of data collection in 2001: higher workforce participation, making households more difficult to contact (and busier) and interviewers more difficult to recruit. Nonetheless, where



the household participated in the survey, 93 per cent of adult household members were successfully interviewed,<sup>1</sup> resulting in 6,521 personal interviews. For more detailed information on the data supplementation exercise and weighting regime adopted please see Appendix A at the end of this report.

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## 2.4 Conclusion

This section has described briefly the data from the Living in Ireland Surveys, and from the 2001 survey in particular, on which the report relies. A comprehensive description of the Living in Ireland Survey is available in Appendix 1, which deals with the structure of the survey, the sample design and supplementation in 2000, the problem of attrition as well as the 2001 sample weights.

<sup>1</sup> As in previous years, summary information on age, sex, income, level of education and marital status was obtained on the household questionnaire for eligible adults who were not interviewed in person.



# 3. RELATIVE INCOME POVERTY IN 2001

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## 3.1 Introduction

In this chapter we draw on data from the 2001 Living in Ireland survey to analyse how the patterns of low income and poverty evolved as the Irish economic boom of the late 1990s slowed and came to an end. We have consistently emphasised that there is no unanimity as to how to best measure poverty: income poverty lines offer one perspective, and we employ a range of income lines to track changes in both relative incomes and incomes in real terms. However, as we have argued at length in previous studies, income lines on their own can miss an important part of the picture and mislead both as to which types of households are most seriously affected by poverty and about trends over time. We therefore emphasise in this study, as in previous work, the need to complement them with information from non-monetary indicators of living patterns and deprivation, so that a more rounded and comprehensive – if necessarily more complex – picture can be seen.

For this reason, in Chapter 5 below we examine trends in deprivation levels as revealed by non-monetary indicators in some detail, as well as changes in the ‘consistent’ poverty measure produced by combining those indicators with relative income lines, the measure adopted by the National Anti-Poverty Strategy in 1997 in framing its original global poverty reduction target. In order to understand those findings, however, it is necessary to look first at what has been happening in terms of household income. For this reason the present chapter presents an overview of trends in income poverty up to 2001, and Chapter 4 focuses on the types of household falling below income poverty lines.

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## 3.2 Relative Income Poverty Lines

We follow conventional 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. A particular household income level will then entail a different standard of living, depending on the number and ages of the people in the household. Again following 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 net household income by the number of equivalent adults in that 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 less than 14 years of age. In the main body of this report we focus on Scale A but comparable results for Scales B and C are set out in Appendix B.

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). 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, and while it is more influenced by extreme values, this is not necessarily a disadvantage since from a conceptual point of view the incomes of the rich may indeed be seen as relevant in thinking about inclusion and exclusion. It may however be sensitive to a small number of very high incomes, unlike the median (the mid-point in the distribution). Here we examine overall trends with both mean and median income-based poverty lines to assess the possible sensitivity of the results to this choice. In order to test the sensitivity of conclusions to the precise location of the poverty line we also continue to use three separate cut-offs – 40, 50 and 60 per cent of mean income, and 50, 60 and 70 per cent of median income.

The income concept employed throughout is weekly 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 2001 Living in Ireland Survey, without equivalisation, was €662.<sup>2</sup> This represents an increase of 14 per cent on the mean in the 2000 ESRI survey. Adjusting for household size and composition by equivalising household income in Table 3.1 we find that mean equivalent disposable household income rose from €276.1 in 2000 to €313.1 in 2001. The 2001 figure constituted an increase of 13 per cent on the 2000 figure, and one of almost 35 per cent on 1998 and of 90 per cent on the 1994 level. Employing equivalence scales B and C would give figures for average equivalent income of €319.02 and €296.42 respectively.

<sup>2</sup> All figures in this report are stated in euro but the survey was actually carried out in the autumn of 2001 when the punt was still in use.

**Table 3.1: Average Weekly Household Equivalent Income, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Income per adult equivalent averaged over households Equivalence Scale A (1/0.66/0.33) Euro per week				
1994	1997	1998	2000	2001
164.33	209.23	232.41	276.10	313.06

Constructing relative income poverty lines based on mean equivalent income averaged over households in 2001 employing the A equivalence scale, the 50 per cent line for a single person household will be at €156.53. The corresponding line for a couple with two children is €363.15. For a single adult, a line set at 40 per cent of mean equivalised household income will have its threshold at €125.22, while the 60 per cent is €187.96 per week.

### 3.3 Poverty Rates Using Relative Income Poverty Lines

Table 3.2 shows the percentage of households below these relative income poverty lines in 1994, 1997, 1998, 2000 and 2001.<sup>3</sup> In 2001, we see that about 10 per cent of households fall below the 40 per cent line, 24 per cent are below the 50 per cent line, and 32 per cent are below the 60 per cent income line. Since 1998, the number of households below all the relative income lines has remained almost constant.

**Table 3.2: Percentage of Households Below Mean Relative Income Poverty Lines, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale/ Poverty line	Percentage of households below line				
	1994	1997	1998	2000	2001
Scale A (1/0.66/0.33):					
40 per cent relative income line	4.9	6.3	9.5	10.6	9.8
50 per cent relative income line	18.6	22.4	23.8	23.7	23.8
60 per cent relative income line	34.2	34.3	32.2	32.0	32.2

While the position of households is relevant, our central underlying concern is about individuals affected by poverty. Focusing on individuals also has implications for the way the relative income lines are derived: rather than averaging equivalent income over households, one can attribute the equivalised income of the household to each member, and then average income over individuals.<sup>4</sup> In Table 3.3, we see the effect of applying this approach for 2001. As found in Nolan *et al.* (2002) with 2000 data, averaging equivalent income across individuals produces a slightly higher mean equivalent income (€313.63 per week in 2001) and thus slightly higher relative income lines and poverty rates. The trend remains much the same as before, with poverty rates pretty well unchanged

<sup>3</sup> Note that due to on-going revisions to data and weights the figures for 1998 and 2000 differ slightly from those published in Nolan *et al.* (2002).

<sup>4</sup> This is the practice followed in for example the UK's official *Households Below Average Income* publication, and now also by Eurostat.

between 1998 and 2001 at the 40 per cent and 60 per cent lines and falling by one per cent at the 50 per cent line. The comparison with 1994 is more variable with a significant increase being observed at the 40 per cent line, a slight increase at the 50 per cent line and a clear reduction at the 60 per cent line.

**Table 3.3: Percentage of Persons Below Mean Relative Income Poverty Lines, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale/ Poverty line*	Percentage of Persons Below Line				
	1994	1997	1998	2000	2001
Scale A (1/0.66/0.33):					
40 per cent relative income line	5.2	6.3	8.2	8.5	8.1
50 per cent relative income line	17.4	18.1	19.3	18.0	18.4
60 per cent relative income line	30.4	30.1	27.8	27.1	27.5

\*Based on Income Averaged Across Individuals.

### 3.4 Median-Based Relative Income Poverty Lines

Mean or average income in a sample may be quite sensitive to a small number of very high incomes reported at the top of the distribution. This can affect the way relative income lines based on the mean fluctuate over time. However, the median – the midpoint of the distribution – is not affected by outliers in the same way. Furthermore, the median has now become the preferred European measure and our main focus throughout this report will be on such measures. However, while as we shall see mean and median approaches can suggest slightly different conclusions concerning overall levels of poverty and trends in such levels, our conclusions relating to the factors associated with poverty and the composition of the poor are largely unaffected by the choice of measure.

Because income distributions are skewed and the median invariably lies below the mean, 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). These results are shown in Table 3.4. Here we can see that in every case there has been an increase of approximately two to three percentage points between 1998 and 2001 and an increase of one per cent between 2000 and 2001. Thus the picture we are offered of change since 1998 is somewhat different for median as opposed to mean based lines. This was less true between 1994 and 1997. These results bring out clearly the fact that the trend shown by relative income lines can be sensitive to exactly how these lines are derived.

**Table 3.4: Percentage of Persons Below Median Relative Income Poverty Lines (Based on Income Averaged Across Individuals), Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale/ Poverty line	Percentage of Persons below line				
	1994	1997	1998	2000	2001
Scale A (1/0.66/0.33):					
50 per cent median income line	6.0	8.6	9.9	12.0	12.9
60 per cent median income line	15.6	18.2	19.8	20.9	21.9
70 per cent median income line	26.7	29.0	26.9	28.1	29.3

As discussed at length in our previous studies (for example Callan *et al.* 1996), 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. Thus we take into account not only how many individuals fall below a poverty line but by how much they do so. As in previous studies, we again employ two widely used summary measures based on the ‘poverty gap’ – the gap between the poverty line and the incomes of those below the line, drawing on Foster, Greer and Thorbecke (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, in effect 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 with the 50 per cent, 60 per cent and 70 per cent median-based lines (and equivalence scale A) are shown in Table 3.5. For each poverty line, this aggregate poverty measure rose substantially between 1998 and 2001 and there is, in fact, a clear trend involving a substantial increase between 1994 and 2001.

**Table 3.5: Per Person Income Gaps Using Median Based Poverty Lines, 1994, 1997, 1998, 2000 and 2001 Living in Ireland Surveys**

	1994	1997	1998	2000	2001
50 per cent line	.0090	.0146	.0163	.0229	.0271
60 per cent line	.0238	.0347	.0377	.0471	.0523
70 per cent line	.0510	.0644	.0658	.0758	.0816

Equivalence Scale A.

The corresponding results for the ‘distribution-sensitive’ measure are shown in Table 3.6. We see that this aggregate poverty gap measure is also consistently higher in 2001 than in 1998, and much higher than in 1994.

**Table 3.6: Distribution-sensitive Weighted Poverty Gap Measure Using Median Based Poverty Lines, 1994, 1997, 1998, 2000 and 2001 Living in Ireland Surveys**

	1994	1997	1998	2000	2001
50 per cent line	.0027	.0049	.0051	.0079	.0108
60 per cent line	.0067	.0108	.0116	.0161	.0196
70 per cent line	.0147	.0120	.0223	.0282	.0322

Equivalence Scale A.

The fact that income poverty gaps *vis-à-vis* relative income thresholds have been rising consistently and substantially over the period from 1994 to 2001 is an important finding, indicating that those falling below relative income thresholds are falling further and further behind the middle of the income distribution. Thus whatever about trends in the extent of income poverty there can be no doubting that its depth has been increasing and the disparity between the poor and the non-poor has been widening over time. This conclusion is robust across measures and across income lines.

### 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, 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 any sustained period of growth, in Callan *et al.* (1996, 1999a) we also looked at how household incomes evolved *vis-à-vis* such a fixed real standard over a relatively short time period.

Table 3.7 shows the percentage of persons falling below lines set at 40 per cent, 50 per cent and 60 per cent of the mean in 1994, and adjusted over time since then only in line with the increase in prices. We see that whereas about 17 per cent were below half average income in 1994, by 2001 only about 2 per cent were still below that income in real terms. With the 60 per cent line the decline was from about 30 per cent to 6 per cent. This reflects the scale of real income growth throughout the distribution seen over this remarkable period.

**Table 3.7: Proportions of Persons Below 1994 Relative Income Standards, 1994, 1997, 1998, 2000 and 2001 Living in Ireland Surveys**

Real Income Standard	Percentage of Persons Below Line				
	1994	1997	1998	2000	2001
40 per cent line	5.2	2.3	1.2	1.1	1.0
50 per cent line	17.4	7.8	5.5	3.1	2.4
60 per cent line	30.4	17.3	12.2	8.6	6.3

Equivalence Scale A.

The National Anti-Poverty Strategy was launched in 1997, and so there is some interest in trends with relative income thresholds derived for 1997 rather than 1994 and indexed to prices from that point on. The percentage below the 50 per cent of mean threshold on that basis would have fallen from 18 per cent in 1997 to 7 per cent by 2001, while the corresponding fall with the 60 per cent threshold is from 30 per cent to 13 per cent. The scale of the increase in real incomes over the longer period back to the late 1980s is also worth illustrating. If one derives relative income thresholds from the 1987 ESRI household survey and indexes them to prices since that date, 1 per cent of persons in 2001 would be below 50 per cent of the 1987 mean income up-rated by prices. Even with the higher, 60 per cent line the figure would be just above 2 per cent. Given that about one in five and one in three were below these thresholds in 1987, the pace of real income growth is indeed dramatic.



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### 3.6 Key Underlying Factors

Between 1998 and 2001, almost the same set of factors continued to operate as in the 1994-98 period examined in our previous studies monitoring trends in poverty. With remarkably rapid GNP growth, we have seen that average household income in our surveys rose between 1998 and 2001 by almost one-third in nominal terms. This represented very substantial real income growth, and unemployment also continued to fall, all contributing to improved living standards. Social welfare rates also continued to increase in real terms. Between 1998 and 2001, some key social welfare rates rose by 13 per cent in real terms (UB/DB), those for the elderly rose a good deal more rapidly and Child Benefit also increased. However, in general, social welfare payments continued to lag behind average income. As a result, those relying primarily on social welfare for their income were more likely to fall below income poverty lines linked to average income, offsetting the impact of increasing numbers in employment.

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### 3.7 European-Level Poverty Indicators

There have recently been important developments in the use of poverty measures as agreed indicators in a social inclusion context at European Union level, and it is worth relating these to the key indicators tracked at national level. The Stockholm European Council in March 2001 gave a mandate to the Council to improve monitoring of action in the fight against poverty and social exclusion by agreeing on a set of social inclusion indicators by the end of 2001, which is by the end of the Belgian Presidency of the Council of the EU. The task of developing this set of indicators was assigned to the EU Social Protection Committee, comprising high-level officials from the relevant ministries in each Member State, and more specifically its Indicators Sub-Group. As a contribution to this exercise the Belgian Government commissioned a scientific study (subsequently published as Atkinson, Cantillon, Marlier and Nolan, 2002) that fed into the work of the Sub-Group. The Social Protection Committee's Report (2001) on social inclusion indicators largely followed the approach taken in the Atkinson *et al.* study, and was subsequently endorsed by the Laeken European Council.

Recognising that a large number of indicators are needed to properly assess the multidimensional nature of social exclusion, the Social Protection Committee recommended that they be presented in tiers:

- *Primary indicators* consisting of a restricted number of lead indicators which cover the broad fields that have been considered the most important elements in leading to social exclusion;
- *Secondary indicators* supporting these lead indicators and describing other dimensions of the problem.

Both these levels comprise commonly agreed and defined indicators, to be used by Member States in their NAPs/inclusion and by the Commission and Member States in the Joint Report on social inclusion. Member States themselves are then encouraged to include

a *third level* of indicators in their National Action Plans, to highlight specificities in particular areas, and to help interpret the Primary and Secondary Indicators; these need not be harmonised at EU level.

The Primary Indicators begin with the percentage falling below income thresholds. The Indicators Sub-Group emphasised that this was to be seen as a measure of people who are ‘at risk of being poor’, not a measure of poverty. This reflects the realisation that low income, on its own, may not always be a reliable indicator of poverty and social exclusion. The Sub-Group devoted considerable time to the choice of low income thresholds. The decision was made to place the main emphasis on relative rather than absolute or fixed thresholds, but a low income threshold anchored at one point in time and updated only in real terms over time was adopted as a Secondary Indicator. On the choice of which relative income threshold to prioritise, the recommendation was made that 60 per cent of median income be the threshold employed in the Primary low income indicator, while Secondary Indicators would include the number of people living in households with incomes below 40 per cent, 50 per cent, and 70 per cent of median income. The SPC was also clearly concerned that people falling below 60 per cent and even more so 70 per cent of median income should not be taken on that basis as ‘poor’, and labelled the indicators ‘low income’ rather than ‘poverty’ rates. When finalising the 2001 Joint Report on Social Inclusion, the Commission and the Council subsequently agreed on the description ‘persons at risk of poverty’.

Eurostat has recently released figures for the Primary and Secondary Indicators for 1999 (Eurostat, 2003). The figures on the numbers below income thresholds are derived from the European Community Household Survey (ECHP). For Ireland, these show 18 per cent of persons falling below the relative threshold set at 60 per cent of median income in 1999. In methodological terms these are derived in the same way as the figures for Ireland in Table 3.4, where the figure for 1998 was about 20 per cent. The latter, like the remainder of this study, is based on the Living in Ireland survey, but that survey is the Irish element of the ECHP so the source for the Eurostat figures and the ones presented here are the same survey. There are however some differences in the way the data are then treated and in the definition of the income variable, which explain why the results are not identical.

First, Eurostat on receipt of data for the individual countries participating in the ECHP treat the data before analysis, imputing values for some missing data and constructing weights to ensure as much consistency as possible between the structure of the sample and external population controls. Both these steps are also implemented with the Living in Ireland Survey but there are some differences in the detailed procedures which can affect the results. As far as the definition of income is concerned, the Eurostat figures are based on income over the calendar year whereas in analysing the Living in Ireland Survey we have focused on income over a shorter period – generally the most recent pay period for employees, for example, and the amount currently being received by social welfare

recipients. (The most satisfactory recording period depends both on the exact question being asked and on the accuracy with which respondents are able to recall income over different periods: our aim is not to argue this in detail here, but simply explain the differences between European and national figures). Finally, the equivalence scale used in producing the Eurostat figures is what is commonly termed the ‘modified OECD scale’ – which assigns a value of 1 to the first adult in the household, 0.5 to each other adult, and 0.3 to each child (under 14). This is different to the scales we have employed in our analysis of the Living in Ireland Survey and can also affect the precise results.

On the basis of the figures produced by Eurostat, the percentage of persons below 60 per cent of median income in Ireland in 1999 is higher than in ten of our EU partners, similar to Spain, Italy and the UK, and a little lower than in Portugal and Greece. The range is from 9-11 per cent in Sweden, Denmark and Germany, up to 21 per cent in Greece and Portugal. Compared with 1996, there had been little change by 1999 in the percentage falling below the 60 per cent of median threshold in Ireland.

It is also worth noting the figures produced by Eurostat with alternative median-based thresholds. With a threshold set at 40 per cent of the median, only 4 per cent of persons in the Irish sample fall below – and the range across the other member states is narrow, from only 2 up to 7 per cent. With a 50 per cent of median threshold, the Irish figure is 11 per cent, with the range across the other member states from 6 up to 14 per cent. With the highest threshold, set at 70 per cent of the median, the Irish figure for 1999 is 28 per cent, which is the top of the range across all the member states – shared with Greece and Portugal. So the threshold used does affect where Ireland ranks comparatively, with our ranking deteriorating as the threshold is raised. One of the most important factors underpinning this pattern is the fact that our social welfare system is relatively effective in providing a safety-net level of support, but that this is generally flat-rate rather than earnings-related and leaves a very significant proportion of the population in a relatively narrow band of the income distribution. As the income threshold is raised, a rather modest increase in the threshold can then ‘capture’ a more significant proportion of households than in some other member states.

The Eurostat figures also include the percentage falling below an income poverty threshold anchored in 1996 and up-rated in line with prices rather than median income since then. This shows an Irish figure in 1999 of 10 per cent, which is lower than a majority of the other member states – the range running from 8 per cent up to 18 per cent. Compared with the rate in 1996, of about 18 per cent, the Irish figure had fallen more rapidly than in any other member state. This reflects the very rapid real income growth experienced in Ireland in the very short period from 1996 to 1999, as analysed over the longer period from 1994 to 2001 in Section 3.5 above.

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### 3.8 Conclusions

Summarising the main findings of this chapter, we have seen that data from the 2001 Living in Ireland Survey show that the number of persons falling below each of the mean relative income poverty lines remained close to constant between 1998 and 2001. The longer-term comparison of the period from 1994 shows an increase of 3 per cent at the 40 per cent line, an increase of 1 per cent for the 50 per cent line, and a decrease of 3 per cent for the 60 per cent line. Focusing on median-based poverty lines provides a rather different story, with a clear trend towards increased poverty being observed at each income line between 1998 and 2001, and the level of increase varying from two to three per cent. Looking at the longer-term comparison, we find that between 1994 and 2001 the number of persons below the 50 per cent median income line more than doubled from 6 per cent to 13 per cent. At the 60 per cent line the corresponding increase was from 16 per cent to 22 per cent. Finally, at the 70 per cent line there was a more modest increase from 27 per cent to 29 per cent. Thus in addition to changes in poverty rates *per se*, there has been a substantial redistribution of the poor to positions below the lower poverty lines rather than between the lower and higher lines.

Consistent with these findings, distribution-sensitive summary poverty measures increased consistently from 1994 to 2001 for all the relative income lines and irrespective of measure employed, thus there can be no doubt that the gap between the income poor and non-poor has widened over time. By contrast, the percentage of persons falling below 'real income' lines indexed to prices since 1994 fell sharply, reflecting the pronounced real income growth throughout the distribution between then and 2001. This contrast points to the fundamental factors at work over this highly unusual period: unemployment fell very sharply and substantial real income growth was seen throughout the distribution, including social welfare payments, although these lagged behind those relating to employment. Because of this, social welfare recipients were more likely to fall below thresholds linked to average income. The implications for the types of households falling below these income thresholds and for living standards and deprivation levels are addressed in subsequent chapters.

Recent figures produced by Eurostat on an officially-agreed set of social inclusion indicators for use at EU level show Ireland in 1999 to have an above-average number 'at risk of poverty' – below thresholds set as proportions of median income. These figures also show little change in the numbers falling below 60 per cent of median income between 1996 and 1999 in Ireland. (There are technical reasons why the figures for Ireland produced by Eurostat, though derived from the same survey for Ireland, are not identical to those presented here from the Living in Ireland Survey.) Using a poverty threshold anchored at a point in time and up-rated in line with prices, however, once again Ireland saw a particularly rapid decline from 1996 to 1999.

# 4. THE PROFILE OF THOSE BELOW INCOME POVERTY LINES IN 2001

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## 4.1 Introduction

To understand the implications of the results presented in the previous chapter, we also need to know what has been happening in terms of the types of households falling below relative income poverty lines. This chapter presents the results from such an analysis, focusing on household composition, labour force status, age and gender. Over the period 1994-2001 we compare the profile of risk and incidence, which respectively identify the percentage of a particular group falling below an income threshold and their importance among those below that threshold.

As we have seen, relative income thresholds may be based on proportions of the mean or the median. The two approaches provide slightly different estimates of the extent of poverty and trends in poverty. Our general preference is to employ the median since it is less influenced by extreme values. However, since generally similar patterns of risk and incidence are shown in either case, this choice will have little impact on our conclusions relating to the factors associated with poverty and will not affect our findings relating to the composition of the poor.<sup>5</sup> In addition, in looking at risk and incidence the focus may be on households or on individuals (categorised by *inter alia* the type of household in which they live), so to avoid a profusion of figures, we present results focusing on persons.<sup>6</sup> Furthermore, since a broadly similar pattern of risk and incidence is also shown by the three alternative equivalence scales described in the previous chapter, the scale attributing a value of 0.66 to each additional adult and 0.33 to each child (Scale A) is employed throughout the results presented here.

<sup>5</sup> Corresponding results using mean-based lines are available from the authors on request.

<sup>6</sup> The choice is whether to weight each household equally, or to weight by the number of persons it contains: in a person-based analysis a household with five members will be counted five times.

## 4.2 Risk, Incidence and Household Composition

In looking at who falls below income poverty lines derived as proportions of median equivalised income, we focus first on the types of household in which they live in terms of numbers of adults and children. For the purpose of this categorisation individuals are defined as children if they are aged under 18 years (rather than 14 years).<sup>7</sup>

Table 4.1 presents the risk of falling below 60 per cent of the median in 1994, 1997, 1998, 2000 and 2001 for persons by household composition type. We see that those in one and two-adult households face the highest risk, together with those in households comprising a couple with four or more children or a single adult with children. In terms of change over the 1994-2001 period, the most striking feature is the very sharp increase in risk for one-adult households. This rate increased seven-fold between 1994 and 1998 and having peaked at 50 per cent fell back slightly to 47 per cent by 2001. The risk for 2-adult households also increased gradually, though by much less than was the case for one-adult households. While the latter increase occurred primarily between 1994 and 1997 the former trend has been more even over time and peaked at 29 per cent in 2001. These increases in risk are related to the fact that significant numbers of single-adult households will be elderly and relying on social welfare pensions, which, although treated generously relative to other social welfare schemes, lagged behind the very rapid rate of increase in average household income.

**Table 4.1: Percentage of Persons Below 60 Per Cent of Median Income by Household Composition Type, Living in Ireland Surveys, 1994 -2001**

	1994	1997	1998	2000	2001
1 adult	7.3	35.7	50.1	47.7	46.8
2 adults	6.8	9.4	16.2	23.1	28.8
3 or more adults	2.6	7.9	5.3	8.8	10.4
2 adults, 1 child	12.5	16.8	14.6	13.9	19.0
2 adults, 2 children	12.6	11.5	12.2	16.1	13.9
2 adults, 3 children	21.8	20.4	20.6	20.7	20.8
2 adults, 4 or more children	44.0	38.9	29.8	39.2	40.7
1 adult with children	36.3	45.3	44.9	46.5	42.9
3 or more adults with children	13.6	19.3	21.9	14.6	13.0
All	15.6	18.2	19.8	20.9	21.9

Looking now at Table 4.2 and the composition of persons falling below 60 per cent of the median, we see that the 1 adult household type is less important in incidence terms than its high risk might suggest, simply because by definition it contains fewer persons than other types. However, 44 per cent of all persons below 60 per cent

<sup>7</sup> This marks a change from our earlier studies where a cut-off of 14 years was used. An increasing number are staying on at school until aged 17 or 18, and most of those aged under 18 are now likely to be dependents. Note that for equivalence scale purposes, on the other hand, they are likely to consume equivalent amounts to adults and so continue to be assigned the full adult weight if aged 14 or over.

of the median are still in households comprising adults only. In terms of trends over time, there has been a marked increase over time in the importance of household types without children among those below the income threshold, as indicated by the fact that in 1994 the corresponding figure was 11 per cent.

**Table 4.2: Composition of Persons Below 60 Per Cent of Median Income by Household Composition Type, Living in Ireland Surveys, 1994-2001**

	1994	1997	1998	2000	2001
1 adult	3.3	14.6	18.4	17.0	15.8
2 adults	5.5	7.4	11.8	16.4	20.4
3 or more adults	2.1	6.5	4.5	7.3	8.1
2 adults, 1 child	4.6	7.0	5.7	4.9	6.3
2 adults, 2 children	9.4	8.7	7.9	10.2	8.1
2 adults, 3 children	16.4	12.2	11.0	8.4	8.8
2 adults, 4 or more children	26.8	12.1	9.5	13.0	12.6
1 adult with children	10.2	8.4	8.6	8.6	8.0
3 or more adults with children	21.8	23.1	22.7	14.2	11.9
All	100.0	100.0	100.0	100.0	100.0

Tables 4.3 and 4.4 show the pattern of risk and incidence in terms of persons falling below 50 per cent of the median. We see that one-adult households, with and without children, now face the highest risk. The former group, which has shown little change over time at the 60 per cent line experienced a five fold increase in risk level at the 50 per cent line between 1994 and 1998 and this risk level remained relatively constant, at approximately 40 per cent, between 1998 and 2001. Thus for this group the major change involved a shift in numbers from between the 50 per cent and 60 per cent line to a position below the latter. A marked increase over time was also observed for single adult only households whose risk level went from 2 per cent in 1994 to 31 per cent in 2001 and for two adult households where the corresponding figures were 3 per cent and 14 per cent. On this occasion these households display similar trends over time, implying that the proportion of single adult households between the 50 per cent and 60 per cent lines has declined significantly in recent years. Persons in such households together with those in two adult households with four or more children display the highest poverty rates. This last group has a poverty rate of 20 per cent but this has changed little over time. Variation in poverty risk across by other household type is extremely modest, ranging from 5 per cent for 3 or more adults to 9 per cent for 2 adults and 3 children. Looking at composition in Table 4.4, we see again that in 2001, despite their high risk, only two-fifths of the persons below 50 per cent of the median live in adult only households. However, there had been a sharp upward trend over time from 1 in 10 per cent in 1994.

**Table 4.3: Percentage of Persons Below 50 Per Cent of Median Income by Household Composition Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	1.7	3.6	19.5	24.4	31.0
2 adults	2.8	3.7	5.3	11.3	13.7
3 or more adults	1.2	3.3	1.3	3.9	5.2
2 adults, 1 child	3.5	5.8	13.3	10.5	16.9
2 adults, 2 children	3.9	6.5	6.6	11.0	8.7
2 adults, 3 children	6.5	13.9	10.0	13.0	9.4
2 adults, 4 or more children	18.3	27.5	22.5	22.9	20.0
1 adult with children	8.4	24.0	42.8	39.5	37.9
3 or more adults with children	7.6	9.4	7.5	6.7	7.4
All	6.0	8.6	9.9	12.0	12.9

**Table 4.4: Composition of Persons Below 50 Per Cent of Median Income by Household Composition Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	2.0	3.2	14.3	15.1	17.8
2 adults	5.8	6.2	7.8	14.1	16.5
3 or more adults	2.5	5.7	2.2	5.7	6.9
2 adults, 1 child	3.3	5.1	10.4	6.5	9.5
2 adults, 2 children	7.4	10.5	8.6	12.1	8.6
2 adults, 3 children	12.6	17.7	10.7	9.3	6.7
2 adults, 4 or more children	28.8	18.1	14.3	13.2	10.5
1 adult with children	6.1	9.5	16.4	12.7	12.0
3 or more adults with children	31.3	24.0	15.5	11.4	11.4
All	100.0	100.0	100.0	100.0	100.0

Tables 4.5 and 4.6 show the pattern of risk and incidence for persons when the poverty line is 70 per cent of the median. For this line two adult households with four or more children have risk levels as high as those for single adult and single adult with children households. In each case around one in two fall below the line. At the 70 per cent line trends over time are substantially more modest than for the 50 per cent and 60 per cent lines indicating that it is shifts in the distribution of people below this threshold, which have been the important features of change over time. In terms of the breakdown of those below this line, those households with 2 adults and no children, or 3 or more adults with children are most important but as before there is significantly less variation in incidence levels than in the corresponding poverty rates.



**Table 4.5: Percentage of Persons Below 70 Per Cent of Median Income by Household Composition Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	40.0	49.5	54.8	52.7	50.9
2 adults	13.4	28.4	26.9	32.2	35.1
3 or more adults	6.4	16.9	13.8	13.0	17.6
2 adults, 1 child	18.4	21.1	18.2	20.6	26.2
2 adults, 2 children	18.6	14.8	16.4	22.2	17.8
2 adults, 3 children	30.3	28.9	24.9	25.5	26.5
2 adults, 4 or more children	54.9	55.2	39.4	56.0	50.2
1 adult with children	65.1	46.8	51.5	56.3	51.0
3 or more adults with children	26.3	32.8	30.3	21.9	25.0
All	26.7	29.0	26.9	28.1	29.3

**Table 4.6: Composition of Persons Below 70 Per Cent of Median Income by Household Composition Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	10.6	12.8	14.8	13.9	12.8
2 adults	6.3	14.0	14.3	17.0	18.6
3 or more adults	3.0	8.8	8.5	8.0	10.3
2 adults, 1 child	3.9	5.5	5.2	5.4	6.5
2 adults, 2 children	8.1	7.0	7.8	10.5	7.7
2 ad, 3 children	13.3	10.9	9.8	7.8	8.3
2 adults, 4 or more children	19.5	10.8	9.2	13.8	11.6
1 adult with children	10.7	5.5	7.2	7.7	7.1
3 or more adults with children	24.6	24.8	23.1	15.9	17.0
All	100.0	100.0	100.0	100.0	100.0

### 4.3 Labour Force Status

We now look at risk and incidence for persons below median-based relative income poverty lines categorised by the labour force status of the reference person for the household in which they live. The household reference person (HRP) 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.<sup>8</sup> Table 4.7 shows the pattern of risk in these terms when the poverty line is derived as 60 per cent of the median. We see that households where the reference person is ill/disabled, unemployed, or in home duties have the highest risk, with two-thirds of the first group falling below the threshold and just less than half of the others. For those in home duties a significant increase was observed from 21 per cent in 1994 to 47 per cent in 1998 but has remained stable between then and 2001. For the unemployed an increase was observed between 1994 and 1998 from 51 to 59 per cent but a significant decline to 45 per cent was observed in 2001. For the ill

<sup>8</sup> The HRP's status is used as this will be more likely to define or set the living standards of the household as a whole

**Table 4.7: Percentage of Persons Below 60 Per Cent of Median Income by Labour Force Status**

	1994	1997	1998	2000	2001
Employee	3.2	4.7	2.6	6.5	8.1
Self-employed	16.0	14.4	16.4	17.9	14.3
Farmer	18.6	16.7	23.9	24.1	23.0
Unemployed	51.4	57.7	58.8	57.1	44.7
Ill/disabled	29.5	52.5	54.5	52.2	66.5
Retired	8.2	13.5	18.4	30.3	36.9
Home duties	20.9	32.6	46.8	44.3	46.9
All	15.6	18.0	19.8	20.9	21.9

and disabled a very sharp increase was observed between 1994 and 1997 from 30 per cent to 53 per cent and a further sharp rise in 2001 to 67 per cent. Although the risk of poverty faced by those households where the reference person is retired has been increasing over time, the risk is still a great deal lower than those households where the HRP is ill/disabled, unemployed or in home duties. Where the reference person is employed the risk is by far the lowest – though between 1998 and 2001 it increased from 3 per cent to 8 per cent and the relative advantage the employed enjoyed over the unemployed fell from 23:1 to 5:1.

Table 4.8 shows the distribution of persons below the 60 per cent line across types of household. Despite their high level of risk, only about 12 per cent of persons below this threshold are in households with an ill/disabled reference person and 7 per cent in households with an unemployed reference person. Again these trends run in dramatically different directions with the figure for the ill/disabled doubling over time while the figure for the unemployed is only one-sixth of its 1994 level. About 30 per cent are in households where the reference person was engaged in home duties, which is close to double its 1994 level. Just below 20 per cent are retired, which involves a tripling of the 1994 level. Despite their very low risk, 19 per cent are in households where the reference person is an employee, a marked increase since 1998. Between 1994 and 2001 there has been a dramatic transformation in the composition of the poor reflecting the sharp decline in unemployment and the failure of vulnerable groups such as the ill/disabled, the retired and those in home duties to keep pace with the advances made by those in employment.

**Table 4.8: Composition of Persons Below 60 Per Cent of Median Income by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Employee	8.3	11.5	6.0	15.4	18.8
Self-employed	10.1	7.8	8.3	8.2	6.6
Farmer	10.6	8.0	10.4	8.9	7.6
Unemployed	41.1	29.6	22.9	12.2	7.3
Ill/disabled	6.2	10.4	9.1	10.7	11.9
Retired	6.0	9.1	12.0	16.3	18.8
Home duties	17.8	23.6	31.4	28.4	29.0
All	100.0	100.0	100.0	100.0	100.0

Tables 4.9 and 4.10 show the pattern of risk and incidence for persons when the poverty line is 50 per cent of the median. Risk level is clearly highest for those in households where the reference person is ill/disabled with six out of ten falling below this threshold. The next highest level of approximately one in three is observed for the unemployed and those in home duties. In no other case does the risk rise above 15 per cent. In composition terms, households where the HRP is in home duties made up one in three of those under the 50 per cent median income line in 2001 and the ill and disabled make up one in five of those below the threshold. Sharp increases over time are observed for the ill/disabled, those in home duties and the retired with sixfold increases in poverty risk in the first case and a fourfold increase in the latter. For the unemployed the poverty level doubled between 1994 and 1997 and then remained somewhat stable. The shift for the ill and disabled was particularly sharp between 1994 and 1998 while the trend for the retired was more even over time.

**Table 4.9: Percentage of Persons Below 50 Per Cent of Median Income by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Employee	0.6	1.2	0.4	2.3	2.9
Self-employed	9.9	10.7	12.6	12.7	10.6
Farmer	10.2	6.2	5.5	17.1	12.0
Unemployed	19.1	39.8	41.0	37.3	33.8
Ill/disabled	10.1	27.5	43.6	45.3	59.0
Retired	4.0	2.1	6.0	12.1	15.3
Home duties	5.7	8.9	21.2	24.8	31.2
All	6.0	8.4	9.9	12.0	12.9

**Table 4.10: Composition of Persons falling Below 50 Per Cent of Median Income by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Employee	3.8	6.6	2.0	9.6	11.5
Self-employed	16.2	13.0	12.4	10.1	8.3
Farmer	15.0	6.5	4.7	11.0	6.8
Unemployed	39.5	44.8	31.2	13.9	9.3
Ill/disabled	5.5	12.0	14.2	16.2	18.0
Retired	7.6	3.1	7.6	11.4	13.3
Home duties	12.5	14.1	27.9	27.8	32.8
All	100.0	100.0	100.0	100.0	100.0

Turning to the 70 per cent of median line, in Tables 4.11 and 4.12 we document the pattern of risk and incidence. In terms of risk, the most striking finding is the exceptionally high level of 70 per cent for those in households where the HRP is someone who is ill or disabled. However, this level is not a new phenomenon and the

deterioration of their position over time largely relates to their distribution below the 70 per cent line. After 1997 this also holds for those in home duties. For the retired on the other hand the trend is much more pronounced with a doubling of the rate between 1994 and 1997 from 17 per cent to 32 per cent and a further sharp increase between 1998 and 2001 to 49 per cent. However, the deterioration in the position of the retired is also noteworthy. The relative position of the retired deteriorates sharply as one moves from the 50 per cent line to the 70 per cent line. While only 15 per cent had been found below the 50 per cent line this rises to almost 50 per cent for the 70 per cent line – a similar level to that for the unemployed. The composition pattern is however, quite similar to that seen with the 60 per cent of median line. For the unemployed the 2001 figures confirm the picture observed at the 50 per cent and 60 per cent line with a reduction in the percentage found below the poverty line.

**Table 4.11: Percentage of Persons Below 70 Per Cent of Median Income by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Employee	7.0	10.1	6.5	10.8	12.6
Self-employed	20.0	25.1	23.5	25.6	22.6
Farmer	28.9	24.8	30.9	35.2	35.9
Unemployed	70.3	68.4	67.9	63.7	49.2
Ill/disabled	60.9	67.0	63.2	61.0	69.8
Retired	17.4	31.8	31.0	40.3	48.9
Home duties	48.8	56.0	59.0	57.2	59.9
All	26.7	28.7	26.9	28.1	29.3

**Table 4.12: Composition of Persons Below 70 Per Cent of Median Income by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Employee	10.7	15.6	11.0	19.0	21.7
Self-employed	7.4	8.6	8.6	8.7	7.8
Farmer	9.6	7.4	9.8	9.6	8.9
Unemployed	33.0	21.9	19.3	10.1	6.0
Ill/disabled	7.4	8.3	7.7	9.3	9.4
Retired	7.5	13.2	14.7	16.1	18.6
Home duties	24.4	25.0	28.9	27.2	27.6
All	100.0	100.0	100.0	100.0	100.0

#### 4.4 Age and Gender

We now look at risk *vis-à-vis* median-based relative income lines when both age of household reference person and presence/absence of children are incorporated into the analysis. We see first in Table 4.13 that over one in three persons in households where the reference person is aged 65 years or over fall below 60 per cent of the median line and they thus face a substantially greater risk than

those where the reference person is aged less than 65 years and there are children in the household where the risk level is one in five. Those households with a HRP aged less than 65 years and where there are no children face the lowest risk with one in six being found below the threshold. Over time what we have seen is stability in the risk level for those aged less than 65 years with children but a significant increase for the other groups. For those aged less than 65 years with children the rate rose from 5 per cent in 1994 to 16 per cent in 2001. For those aged 65 years or more the corresponding rise was from 7 per cent to 37 per cent. Whereas in 1994 households where the reference person was under 65 years and there were children, were four times more likely to fall below 60 per cent of median income than households where the reference person was aged over 65 years, by 2001 the disparity had been reversed and the latter were almost twice as likely to be poor.

**Table 4.13: Percentage of Persons Falling Below 60 Per Cent of Median Income by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Aged < 65 No Children	5.1	10.2	11.0	14.5	16.2
Aged <65 with Children	20.6	20.9	19.8	20.6	20.3
Aged 65+	6.5	20.3	25.3	31.9	36.6
All	15.6	18.2	19.8	20.9	21.9

No such variation across age groups is found at the 50 per cent of median line in Table 4.14 although the highest level of 16 per cent is once again observed for those aged 65 or over. Once again the rate of increase in risk of poverty was a good deal less sharp for those aged less than 65 with children.

**Table 4.14: Percentage of Persons Falling Below 50 Per Cent of Median Income by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Aged < 65 No Children	1.5	10.2	5.5	10.2	11.9
Aged <65 with Children	8.0	11.9	12.3	13.2	12.6
Aged 65+	3.3	2.4	5.7	10.3	15.5
All	6.0	8.6	9.9	12.0	12.9

At the 70 per cent median line, shown in Table 4.15, the pronounced sub-group variation reasserts itself with the risk level ranging from one in eight for those aged less than 65 with no children, to just over one in five for those aged 65 or over. Those under 65 with children have a rate of roughly one in three. The largest change over time was found among those aged 65 or over where the poverty rate went from just over one in five in 1994 to one in two in 2001. Once again the outcome was to produce a substantial reversal of the disparities between elderly households and non-elderly households with children.

**Table 4.15: Percentage of Persons Below 70 Per Cent of Median Income by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Aged < 65 No Children	13.2	18.8	15.2	18.1	19.4
Aged <65 with Children	31.7	29.8	26.3	28.1	27.8
Aged 65+	21.9	41.7	39.9	44.0	51.0
All	26.7	29.0	26.9	28.1	29.3

Looking now at the risk facing individuals of different ages – rather than in terms of the age of their household reference person – Table 4.16 shows that those aged 65 years or more face a much higher risk than other adults of being below 60 per cent of the median. Children face an intermediate level of risk, while adults aged 18-64 face the lowest risk. Change over time for the elderly is quite dramatic. In 1994 only 6 per cent were below 60 per cent of median income, but by 1997 this had risen to 24 per cent and by 2001 it had risen to 44 per cent. In contrast there was a modest increase for those aged between 18-64 years and no change for children under 18 years.

**Table 4.16: Percentage of Persons Below 60 Per Cent Median Income Poverty Line by Age, Living in Ireland Surveys 1994,1997, 2000 and 2001**

	1994	1997	1998	2000	2001
	%	%	%	%	%
Adults	11.1	16.1	18.6	19.9	21.3
Aged 18-64	12.1	14.7	15.9	16.4	17.1
Aged 65 or more	5.9	24.2	32.9	38.4	44.1
Children (aged under 18)	24.5	23.5	22.6	23.7	23.4

Measured purely in terms of relative incomes, then, the dramatic decline in unemployment since 1994 has been accompanied by only a very modest decline in the percentage of children falling below this threshold, with almost one-quarter still below 60 per cent of median income (in terms of the income of their household). As we will see below, there has been a marked improvement in the living standards of these households over the period, as captured by non-monetary indicators of deprivation. There has also been a very significant shift in the types of household affected: far more of the children below the income threshold are now in households where the reference person is in employment rather than unemployed. Whereas in 1994 almost half of all children below the threshold were in households where the reference person was unemployed, by 2001 this had fallen to only one in ten. There was a marked increase in the proportion in households with children below the threshold where the reference person was in employment – from about 10 per cent up to one-third – and also an increase in the proportion with reference person in home duties or not in work due to sickness or disability.

Turning to the other median-based lines, once again the lowest line (Table 4.17) shows much less variation in risk by age, whereas the 70 per cent line (Table 4.18) has a very similar pattern to the 60

per cent line. In both cases the rate of increase in exposure to income poverty is substantially sharper for the elderly than for other groups. At the 50 per cent line the rate rose from 3 per cent in 1994 to 18 per cent in 2001. While at the 70 per cent line the corresponding increase was from 25 per cent to 56 per cent. In this latter case, while in 1994 age had little impact on poverty risk by 2001 those aged 65 or more were almost two and a half times more likely to be poor.

**Table 4.17: Percentage of Persons Below 50 Per Cent of Median Income by Age, Living in Ireland Surveys 1994,1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
	%	%	%	%	%
Adults	4.3	6.4	8.1	10.8	12.4
Aged 18-64	4.6	7.1	8.6	10.6	11.3
Aged 65 or more	2.8	2.6	5.7	12.0	18.2
Children (aged under 18)	9.4	13.8	14.2	15.1	14.2

**Table 4.18: Percentage of Persons Below 70 Per Cent of Median Income by Age, Living in Ireland Surveys 1994,1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
	%	%	%	%	%
Adults	21.8	27.6	26.0	26.5	28.5
Aged 18-64	21.3	23.8	21.8	21.8	23.3
Aged 65 or more	24.5	49.0	48.3	51.8	56.3
Children (aged under 18)	36.4	32.2	29.2	32.4	31.4

It is also of interest to look at adults below median based poverty lines categorised by both age and gender. In Table 4.19 we see that women overall face a higher risk of falling below 60 per cent of median income, but that this gap is concentrated among the elderly where it is most pronounced. Men and women aged between 18-64 years have a one in six chance of being found below the 60 per cent line. For men over 65 years this rises to just over one in three and for women to one in two. In 1994 elderly men and women both had extremely low poverty rates and were only half as likely to fall below the 60 per cent line. By 2001 elderly men were over twice as likely to be poor and disparity for women had reached three to one. From Table 4.20 we can see that the picture is somewhat different at the 50 per cent line. Here age has little impact for men but elderly women are almost twice as likely as younger women to fall below the poverty line. The pattern at the 70 per cent line, as set out in Table 4.21, is closer to that found at the 60 per cent line with both age and sex interacting. Thus while approximately one in four persons aged 18-64 years are below the line, this is true of almost one in two elderly men and over six out of ten elderly women.

**Table 4.19: Percentage Below 60 Per Cent of Median Income by Gender and Age, Adults, Living in Ireland Surveys 1994,1997, 1998, 2000 and 2001**

	1994		1997		1998		2000		2001	
	%		%		%		%		%	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All Adults	10.6	11.6	12.9	19.2	15.9	21.2	17.3	22.3	19.4	23.2
Aged 18-64	11.3	12.9	12.9	16.5	15.0	16.8	15.4	17.5	16.7	17.4
Aged 65 or more	6.4	5.5	13.0	33.1	21.1	41.9	29.2	45.4	36.1	50.2

**Table 4.20: Percentage Below 50 Per Cent of Median Income by Gender and Age, Adults, Living in Ireland Surveys 1994,1997, 1998, 2000 and 2001**

	1994		1997		1998		2000		2001	
	%		%		%		%		%	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All Adults	4.3	4.4	5.8	7.0	7.1	9.1	9.7	11.8	10.8	13.9
Aged 18-64	4.5	4.7	6.4	7.8	7.8	9.5	9.7	11.4	10.5	12.1
Aged 65 or more	3.0	2.7	1.8	3.2	3.4	7.5	9.8	13.6	12.9	22.2

**Table 4.21: Percentage Below 70 Per Cent of Median Income by Gender and Age, Adults, Living in Ireland Surveys 1994,1997, 1998, 2000 and 2001**

	1994		1997		1998		2000		2001	
	%		%		%		%		%	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
All Adults	19.7	23.0	23.5	29.6	23.1	28.8	23.4	29.4	26.2	30.7
Aged 18-64	20.0	22.6	23.4	24.3	20.8	22.7	20.1	23.6	22.7	24.0
Aged 65 or more	17.5	29.8	39.0	56.9	37.3	56.6	44.3	57.4	48.7	62.1

## 4.5 Social Welfare Receipt

In Table 4.22 we document the risk of poverty for persons in receipt of different types of social welfare benefits. With the exception of those individuals in receipt of lone parents allowance, there has been a sharp increase in the percentage below the 60 per cent line (and even here there has been a rise between 1994 and thereafter). In 1994 around one in twenty in receipt of an old age pension were below the 60 per cent line this rose gradually to one in two by 2001. Similarly, while one in twenty of those in receipt of a widow's pension were poor at this line in 1994, this had risen to over four out of ten by 2001. The poverty rates for those in receipt of unemployment benefit/assistance and illness/disability were rather higher in 1994 with approximately one in four being located below the poverty line. However, these figures also displayed a clear upward trend with approximately one in two of both types of recipients falling below this threshold in 2001. The only group not to display such an upward trend were those in receipt of lone parents allowance. This group had the highest rate of poverty in 1994 with one in four falling below the 60 per cent line. This increased to roughly four in ten after 1994, but in contrast with the other groups this higher figure remained stable over the period under observation.



**Table 4.22: Proportion of Persons in Receipt of Specific Welfare Benefits/Assistance in Households below 60 Per Cent Median Income**

	1994	1997	1998	2000	2001
Old Age Pension	5.3	19.2	30.7	42.9	49.0
Unemployment Benefit/Assistance	23.9	30.6	44.8	40.5	43.1
Illness/Disability	10.4	25.4	38.5	48.4	49.4
Lone Parent's Allowance	25.8	38.4	36.9	42.7	39.7
Widow's Pension	5.5	38.0	49.4	42.4	42.1

## 4.6 Conclusions

In this chapter we have analysed the pattern of risk and incidence when income poverty lines are calculated as proportions of median equivalised income. Among the most striking findings were an increasing risk for those in single person households, in households where the reference person is ill/disabled or retired, and for those who are themselves aged 65 or over, particularly women. Those in households where the reference person is unemployed still face a relatively high risk of falling below the income thresholds but continue to decline as a proportion of all those below the lines. Conversely, those in households where the reference person is an employee still face by far the lowest risk but became a more important component between 1998 and 2001 among those below the thresholds as the numbers unemployed continued to fall and the number of employees rose. Those aged 65 or over faced a much higher risk of falling below 60 or 70 per cent of median income than those aged 18-65 years, with children then facing an intermediate level of risk. Women faced a higher risk of falling below those lines than men, but this gap was most marked among the elderly. Income poverty among older people has been feminised to a significant degree. This in part reflects low rates of female participation in insurable employment in the past and the non-participation of the self-employed and in particular farmers in the social insurance system until recently and the tendency for women to live longer.

These trends in risk and profile reflect the key factors at work over the period and identified in the previous chapter. The sharp fall in unemployment between 1994 and 2001 is reflected in a decline in its importance among those falling below the income thresholds, although the risk facing those affected by unemployment increased substantially. The fact that social welfare payments, although increasing significantly in real terms, lagged behind wages and salaries meant that those relying on such payments for much or all of their income – notably those on old age pensions – were more likely to fall below thresholds linked to average income. This in turn affected women and adults living alone with particular force, since a substantial proportion of single-adult households comprise elderly women relying entirely on means-tested pensions. Since unlike the case for unemployment these groups did not decline significantly they came to make up a larger proportion of the poor. The implications for such people of increasing real incomes – while

lagging behind incomes from work and property – are taken up in the following chapters.

# 5. POVERTY MEASURES INCORPORATING NON- MONETARY DEPRIVATION INDICATORS

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## 5.1 Introduction

Poverty is now widely conceptualised in terms of exclusion from the life of one's society because of a lack of resources, and so involves experiencing various forms 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 National Anti-Poverty Strategy (Callan *et al.*, 1997; Callan *et al.*, 1999b). As we have argued in previous work, income on its own has limitations for capturing such exclusion. Those below lower relative income lines in particular are often not those experiencing the highest levels of deprivation. Consequently, using income versus deprivation to identify the most disadvantaged tends to identify groups with quite different socio-demographic profiles (Callan, Nolan and Whelan 1993; Nolan and Whelan, 1996). This has been shown to be true across a wide range of European Union countries, although the relationship between current income and deprivation is strongest in the poorer Southern European countries (Whelan, Layte, Maitre and Nolan 2001; Layte *et al.*, 2001b).

The Irish case is even more complex, because the very rapid growth in average incomes since 1994 poses particular problems in capturing what is generally regarded as exclusion. In such circumstances, relying on relative income lines alone could lead to particularly misleading conclusions. 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 at the ESRI initially using the 1987 "Survey of Poverty, Income Distribution and Use of State Services" results. Callan, Nolan and Whelan (1993) and Nolan and Whelan (1996) used a range of deprivation indicators to produce different indices of deprivation and identified those both below relative income poverty lines and experiencing what was termed basic deprivation as experiencing generalised deprivation due to lack of resources. This 'consistent' poverty measure was subsequently the basis for the

global poverty reduction target adopted in the National Anti-Poverty Strategy.

The construction of these deprivation indices is described in the first section of this chapter. We then examine the way deprivation levels have evolved between the 1994 wave of the Living in Ireland Survey and 2001. In the third section we discuss how these indicators can be combined with low income into a ‘consistent’ poverty measure. Finally, we look at the risk and incidence of ‘consistent’ poverty and how it has changed between 1994 and 2001.

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## 5.2 The Deprivation Items and Indices

The full set of 23 non-monetary indicators available from the Living in Ireland Surveys are 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 (These questions were on the household rather than the individual questionnaire in the survey, and thus responses are from the household reference person.) For the four items in Table 5.1 with an asterisk, it is presence rather than absence that constitutes deprivation and it is assumed that people would pay for these rather basic items if they could.

There are a number of different ways in which we could combine the items shown in Table 5.1 into an overall measure 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 as shown in Table 5.1:

1. basic life-style deprivation – consisting of basic items such as food and clothes and difficulty in meeting routine expenses;
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.

**Table 5.1: Indicators of Style of Living and Deprivation in Living in Ireland Surveys****Basic Life-style Deprivation**

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

\*Had day in the last 2 weeks without a substantial meal

\*Had to go without heating during the last year through lack of money

\*Experienced debt problems arising from ordinary living expenses or availed of charity

**Secondary Life-style Deprivation**

Telephone

Car

Washing Machine

Refrigerator

Colour Television

\*Was not able to afford an afternoon or evening out in the previous 2 weeks.

**Housing Deprivation**

Central Heating

Bath or Shower

Indoor Toilet

A Dry – Damp Free Dwelling

**Other Deprivation**

A Week's Annual Holiday Away From Home

To Be Able to Save Some of One's Income Regularly

A Daily Newspaper

A Hobby or Leisure Activity

Presents For Family and Friends Once a Year

This structuring of deprivation has been shown to have remained unchanged between 1987 and 2000 (Callan *et al.*, 1996; Callan 1999a; Layte *et al.*, 2001a; Nolan *et al.*, 2002). 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 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 clustered together, they were possessed by most people and reflect rather basic aspects of current material deprivation. This all supported the notion that they were useful as indicators of the underlying generalised deprivation one is trying to capture. Most of the items in the secondary dimension, on the other hand, were not overwhelmingly regarded as necessities. 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 – were not considered satisfactory as indicators of current generalised exclusion (Nolan and Whelan, 1996).

The pattern of scores between 1994 and 2001 on this 8-item (enforced lack) basic deprivation index is shown in Table 5.2. We see a steady decline in the mean basic deprivation score from about 0.58 in 1994 to only 0.14 in 2001. In other words the mean score in 2001 was less than one-fourth of that in 1994. The percentage of households registering a score of one or more has fallen from just over 25 per cent in 1994 to less than 9 per cent in 2001, while the percentage scoring two or more has fallen from 12 per cent to 3 per cent.

**Table 5.2: Distribution of Scores on 8-Item Basic Deprivation Index, 1994, 1997, 1998, 2000 and 2001 Living in Ireland Surveys**

Score	Per Cent of Households				
	1994	1997	1998	2000	2001
0	74.6	84.1	87.2	90.2	91.5
1	13.2	8.9	7.2	6.0	5.7
2+	12.2	7.0	5.5	3.8	2.8
All	100.0	100.0	100.0	100.0	100.0
Mean	0.58	0.30	0.24	0.17	0.14

We can explore this decline further by looking at the trend over time in the proportion experiencing enforced absence of one or more items in the basic index by household composition. From Table 5.3 we can see that deprivation has fallen sharply between 1994 and 2001 for all family types, and for almost all a significant decline was seen between 1998 and 2001. Larger households, with 3 or more children experienced the greatest decline in risk from 1998. Those with 2 adults and 4 or more children saw the rate halved as it fell from 29 per cent to 14 per cent. While the level remained highest for households with one adult and children, even here the rate was almost halved as the figure went from 57 per cent to 34 per cent between 1994 and 2001. In all other households the number lacking one or more basic items fell below one in twelve by 2001.

**Table 5.3: Risk of Scoring 1 or More on Basic Deprivation Index by Household Criteria Composition Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	22.1	14.1	14.5	12.5	8.1
2 adults	15.0	10.7	8.3	6.1	6.2
3 or more adults	17.0	9.9	8.7	4.5	5.3
2 adults, 1 child	21.4	13.0	9.5	10.5	5.5
2 adults, 2 children	19.6	10.4	7.2	5.3	6.2
2 adults, 3 children	30.2	21.4	20.2	11.2	7.6
2 adults, 4 or more children	41.7	35.8	28.5	16.0	14.2
1 adult with children	56.6	27.6	34.5	30.7	34.4
3 or more adults with children	31.1	22.1	12.1	9.4	8.0
All	24.0	14.9	12.6	9.6	8.3

Categorising households by age and presence of children, in Table 5.4, we again find that deprivation has fallen sharply since 1994 for all the categories. In each case the 2001 rate was approximately one-third of the 1994 rate. These rather similar proportionate reductions meant that the absolute percentage differences between such households were substantially reduced. By 2001, 11 per cent of households where the HRP was less than 65 years and children were present lacked one or more basic item compared to 7 per cent of those in the same age group without children and 6 per cent of those aged 65 years or more.

**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, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
Aged < 65 No Children	19.0	13.0	12.1	7.9	7.0
Aged <65 with Children	30.8	18.8	15.4	11.5	10.7
Aged 65+	18.5	10.8	8.6	8.9	6.1
All	24.0	14.9	12.6	9.6	8.3

Finally, in Table 5.5 we examine changes in level of basic deprivation by the economic status of the household reference person. Once again we see a marked decrease in basic deprivation for all types of households since 1994 with the decline continuing between 1998 and 2001. In absolute terms that decline has been particularly large for households where the reference person is ill or disabled or unemployed. In the former case the figure falls from 48 per cent to 24 per cent and in the latter from 58 per cent to 27 per cent. In relative terms this involves a reduction to one-third and one-half of the former levels respectively. These groups, however, remain sharply distinguished from all other groups. One in four of each of these groups experiences such deprivation. This rate is twice that of those in home duties and three to six times of other groups. One development which does not fit this general decrease in deprivation across groups is the quite substantial increase for the ill/disabled between 2000 and 2001. As we will go on to see in more detail shortly this result stems from rather small numbers on this particular group in the LIIS data and is not reliable statistically.

### 5.3 The Combined Income and Deprivation Poverty Measure

We have seen that there have been significant reductions between 1994 and 2001 in the basic index of deprivation, which is the measure we have used to date together with low income to identify households excluded because of a lack of resources. As in earlier work (Callan *et al.*, 1999a; Latye *et al.*, 2001a), we now combine basic deprivation with relative income poverty lines to construct a 'consistent' poverty measure, distinguishing households that both have relatively low 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 40, 50 and 60 per cent of mean equivalised disposable income and as 50, 60 and 70 per cent of median disposable income.

Table 5.6 shows the percentage of households in the sample deprived of one or more items on the basic index and falling under different mean relative income thresholds (using equivalence scale A). Using 60 per cent of mean income as the income element of the measure, Callan *et al.*: (1999a) showed that there were substantial falls in 'consistent' poverty between 1994 and 1997, from 15 per cent to under 10 per cent, and Layte *et al.* (2001a) reported a further fall to 8 per cent by 1998. A further reduction was reported in 2000 (Nolan *et al.*, 2002). In 2001 we now see that, although the level of change is marginal, this decline has continued as that figure approaches 5 per cent. When 50 per cent of mean income is used the decline over time is less pronounced, from 9 per cent in 1994 to 4 per cent in 2001. When 40 per cent of mean income is used as the income element of the poverty measure the percentage below that line and reporting basic deprivation has been very low throughout, at about 2 to 3 per cent, but has not declined from that very low level.

**Table 5.6: Percentage of Households Below Proportions of Mean Income and Experiencing Basic Deprivation in 1994, 1997, 1998, 2000 and 2001 Living in Ireland Surveys**

Proportion of mean income (Eq. Scale A)	% of households below Line and Experiencing Enforced Basic Deprivation				
	1994	1997	1998	2000	2001
40 per cent of mean	2.4	3.1	3.4	2.7	2.5
50 per cent of mean	9.0	6.7	6.0	4.5	4.1
60 per cent of mean	15.1	9.7	8.0	5.8	5.2

While in previous studies we have constructed the consistent poverty measure for households and using income thresholds based on proportions of mean income, we saw in Chapter 3 that there are some arguments for focusing on persons instead. Using the 60 per cent of mean income threshold, we find that 4.7 per cent of persons were in such households in 2001, slightly lower than the 5.2 per cent figure for households, implying that these poor households are below average in size. In 1994, by contrast, the 15 per cent of households below 60 per cent of mean income and experiencing basic deprivation contained 17.4 per cent of all persons in the sample, and thus were slightly above average in size. As we shall see, this reflects important changes in the composition of the households affected – as the numbers involved declined sharply over the period.

We also saw that there are arguments for deriving relative income thresholds from median rather than mean income. We therefore construct consistent poverty measures combining basic deprivation with median-based income lines, and the results for persons are shown in Table 5.7. We see a similar decline over time in Table 5.6. Focusing on the highest line, 70 per cent of median income, by 2001 the percentage of persons below that line and experiencing basic



deprivation was down to 5 per cent compared to 15 per cent in 1994.

**Table 5.7: Percentage of Persons Below Proportions of Median Income and Experiencing Basic Deprivation in 1994, 1997, 1998, 2000 and 2001 Living in Ireland Surveys**

Proportion of median income (Eq. Scale A)	% of Persons below Line and Experiencing Enforced Basic Deprivation				
	1994	1997	1998	2000	2001
50 per cent of median	3.5	5.2	3.6	2.7	2.9
60 per cent of median	8.3	7.8	6.0	4.3	4.1
70 per cent of median	14.5	10.7	7.7	5.4	4.9

The non-monetary indicators included in the basic deprivation measure on which these results are based are unchanged from 1994 to 2001. Indeed, the same set was previously used in examining deprivation in 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, one has to ask whether these indicators are still capturing what would now be regarded as generalised deprivation. This is a critical question to which we return, having first examined the pattern of risk and incidence using the unchanged set of items.

## 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 look here at risk and incidence in terms of individuals rather than households, and with the income element of the consistent poverty measure based on proportions of the median rather than the mean.<sup>9</sup> Table 5.8 shows the percentage of individuals below 70 per cent of median income and experiencing basic deprivation, categorised by the type of household in which they live. We see declines in risk across all the categories between 1994 and 2001. Thus for households with 2 adults and 3 children it fell from 18 per cent to 3 per cent and for those with two adults and 4 children from 36 per cent to 10 per cent. Between 1998 and 2001 the decline was particularly marked among households with three or more children.

<sup>9</sup> Corresponding results showing the pattern of risk and incidence for persons using other relative income poverty lines are available on request.

**Table 5.8: Percentage of Persons below 70 Per Cent of Median Income and Experiencing Basic Deprivation by Household Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	15.1	12.1	12.7	10.9	7.2
2 adults	4.0	6.1	3.0	3.0	4.1
3 or more adults	3.3	5.5	4.8	1.7	1.5
2 adults, 1 child	9.2	6.9	3.6	3.9	3.3
2 adults, 2 children	9.3	3.3	1.8	2.6	1.4
2 adults, 3 children	17.5	15.	10.4	4.9	3.2
2 adults, 4 or more children	35.6	33.9	20.2	14.2	10.1
1 adult with children	42.8	20.7	30.9	25.8	24.4
3 or more adults with children	14.2	12.8	7.2	4.1	5.5
All	14.5	10.7	7.7	5.4	4.9

Changes for other households have been modest although the trend has also been downwards. For some categories, such as adult only households with more than one adult, rates have been low but stable since 1998. Households comprising one adult with children experience by far the highest risk rate. However, the rate for this group has also declined from 43 per cent in 1994 to 24 per cent in 2001. However, the trend since 1997 has been less clear-cut than in the case of other groups.

In Table 5.9 we proceed to show the composition of the individuals below 70 per cent of the median and experiencing basic deprivation. The most striking change over time has been for 1 adult with children households, who comprised less than one in twenty persons below this line in 1994 but one in five by 2001.

**Table 5.9: Composition of Persons Below 70 Per Cent of Median Income and Experiencing Basic Deprivation by Household Type, Living in Ireland Surveys, 1994, 1997, 1998, 2000 and 2001**

	1994	1997	1998	2000	2001
1 adult	7.1	8.3	11.9	14.8	10.8
2 adults	12.5	8.3	5.6	8.4	13.1
3 or more adults	12.7	7.8	10.5	5.4	5.1
2 adults, 1 child	5.7	4.9	3.6	5.4	4.9
2 adults, 2 children	11.6	4.3	2.9	6.3	3.5
2 adults, 3 children	11.7	15.9	14.4	7.7	6.1
2 adults, 4 or more children	9.5	18.5	16.6	18.1	14.2
1 adult with children	4.4	6.2	15.3	18.4	19.8
3 or more adults with children	24.9	25.8	19.1	15.4	22.6
All	100.0	100.0	100.0	100.0	100.0

We now focus on risk and incidence when the categorisation is by the labour force status of the reference person. Table 5.10 shows that the risk of consistent poverty is highest when the reference person is ill/disabled or unemployed (23 per cent and 19 per cent), intermediate when in home duties (12 per cent) and lowest when he or she is at work (0.2 per cent to 2 per cent). The risk of consistent

poverty declined between 1994 and 2001 for most groups, although the figures for 2001 show a slight increase for those in a household headed by a retired person and a large increase for those in the household of someone who is ill/disabled. As shown by Table 5.5, the retired have seen a decrease in deprivation between 2000 and 2001, thus the increase in Table 5.10 stems from a further increase in income poverty among this group. Among households where the reference person is ill/disabled however, the increase in both income poverty and deprivation between 2000 and 2001 has fed into a large increase in consistent poverty. However, households headed by an ill/disabled person are a small group in our survey and the increase in measured deprivation is actually due to a small number of households within this group from which one could not reliably generalise.

**Table 5.10: Percentage of Persons Below 70 Per Cent of Median Income and Experiencing Basic Deprivation by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

<b>Below 70% income line and experiencing basic deprivation</b>	<b>1994</b>	<b>1997</b>	<b>1998</b>	<b>2000</b>	<b>2001</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Employee	3.2	3.6	1.1	2.5	1.8
Self-employed	4.6	3.9	3.6	1.7	0.5
Farmer	5.5	1.0	3.3	1.5	1.3
Unemployed	52.2	42.7	31.2	24.5	19.1
Ill/disabled	36.2	31.7	15.7	10.8	22.5
Retired	6.1	5.5	5.0	3.6	5.3
Home duties	28.8	19.2	20.3	14.3	12.3

The composition figures in Table 5.11 show that one-third of persons in consistent poverty are in households where the reference person is engaged in home duties. The vast bulk of the remainder are spread relatively evenly across employees, the ill/disabled, the unemployed and retired. However, there has been a significant decrease over time in the proportion of households with an unemployed reference person from the level of one in two observed in 1994 to that of one in seven observed in 2001. One of the consequences of the dramatic decline in rates for a number of the groups is that the employees group, which had low rates across the whole of this period, now constitute one in five of the ‘consistently poor’.

**Table 5.11: Composition of Persons Below 70 Per Cent of Median Income and Experiencing Basic Deprivation by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	<b>1994</b>	<b>1997</b>	<b>1998</b>	<b>2000</b>	<b>2001</b>
Employee	9.1	16.1	7.1	22.5	19.0
Self-employed	3.2	3.8	4.8	3.1	1.1
Farmer	3.3	0.8	3.9	2.2	2.0
Unemployed	45.0	39.0	32.6	20.5	14.3
Ill/disabled	8.3	9.5	7.1	8.4	17.8
Retired	4.8	6.4	8.7	7.6	12.1
Home duties	26.4	24.4	35.7	35.8	33.7

Changes in composition profile by household type also has implications for the numbers of adults and children falling below relative income lines and experiencing basic deprivation. In 1994, 14 per cent of adults and 25 per cent of children (under 18) were in households below 60 per cent of mean income and experiencing basic deprivation. By 2001, the percentage of adults had fallen to 4 per cent while the percentage of children was 6 per cent. Table 5.12 shows the corresponding figures for 1997 (when the NAPS was inaugurated) and 2001, using 70 per cent of the median rather than 60 per cent of the median as the income element of the consistent poverty measure. We see that once again by 2001 only about 7 per cent of children were in households below that threshold and experiencing basic deprivation compared to 15 per cent in 1997. The figures for the adult groups were 4 per cent, that is, half the rate in 1997.

**Table 5.12: Percentage of Persons Below 70 Per Cent Median Income Poverty Line and Experiencing Basic Deprivation by Age, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1997 %	2001 %
Adults	8.8	4.3
Aged 18-64	8.8	4.3
Aged 65 or more	8.4	3.9
Children (aged under 18)	15.3	6.5

Table 5.13 compares the position of men and women. We see that overall, a slightly higher proportion of women than men are in consistent poverty. This relationship has been maintained while figures for both groups have declined.

**Table 5.13: Percentage Below 70 Per Cent of Median Income and Experiencing Basic deprivation by Gender and Age, Adults, Living in Ireland Surveys 1997 and 2001**

	1997 %		2001 %	
	Men	Women	Men	Women
All Adults	8.3	9.2	3.5	4.9
Aged 18-64	8.6	9.0	3.6	5.1
Aged 65 or more	6.1	10.2	3.1	4.4

In the previous chapter we saw how, for those in receipt of range of welfare benefits/assistance, poverty rates at 60 per cent of median income had increased sharply between 1994 and 2001. In Table 5.14 we look at comparable trends for consistent poverty at 70 per cent of median income. Here we find that, despite the sharp downward trend over time, when we focus on income poverty, in the case of consistent poverty at the 70 per cent line, the trend is generally downward. This is most obvious in the case of those receiving

unemployment benefits or assistance where the proportion below the combined line fell from one in three in 1994 to one in ten in 2000. For those in receipt of widow's pensions a sharp reduction from 14 per cent to 4 per cent was observed. Similarly we observed a halving of the rate for lone parents from 36 per cent to 18 per cent. For those in receipt of old-age pension and illness/disability payments the reductions were a great deal more modest.

**Table 5.14: Proportion of Persons in Receipt of Specific Welfare Benefits/Assistance in Households below 70 Per Cent Median Income and Experiencing Basic Deprivation**

	1994	1997	1998	2000	2001
Old Age Pension	7.1	9.9	7.6	7.3	6.0
Unemployment Benefit/Assistance	29.8	28.9	27.2	19.6	10.7
Illness/Disability	22.9	16.3	15.8	11.3	16.3
Lone Parents Allowance	36.0	24.9	17.2	21.7	17.6
Widow's Pension	13.8	10.4	8.0	5.3	3.7

## 5.5 Conclusions

This chapter has explored trends in the extent of basic deprivation from 1994 to 2001 using a set of eight non-monetary deprivation items on which information was obtained in the Living in Ireland Surveys. The results showed a marked decline in basic deprivation scores across different household types, whether categorised by household composition or by the labour force status of the household reference person. A decline was also generally seen from 1998 to 2001.

We then looked at trends in 'consistent' poverty, that is the numbers both below relative income poverty lines and experiencing basic deprivation. We saw that the percentage of households and individuals in consistent poverty declined sharply from 1994 to 2001, and also fell between 1998 and 2001, whether income lines based on the mean or median were employed (unless a very low relative income line was used). By 2001, only 5 per cent of persons were below 70 per cent of median income and experiencing basic deprivation, compared with 10 per cent in 1997 and 15 per cent in 1994.

In comparison with the poverty line set at 60 per cent of median income the consistent poverty line involving the 70 per cent line is proportionately less likely to identify the self-employed, farmers and the retired and more likely to lead to a focus on the ill/disabled and the unemployed. Those in home duties are identified as a high-risk group by both approaches. These differences, as we would have anticipated, reflect the fact that the self-employed and the retired are less dependent on current income and draw on a wider portfolio of resources.

The consistent poverty approach is also less likely to identify individuals in adult only households and more likely to identify individuals in households with one adult and children. The latter households continue to face a particularly high risk of consistent poverty, followed by those in families with two adults and four or

more children. The percentage of adults in households below 70 per cent of median income and experiencing basic deprivation has fallen from 9 per cent in 1997 to around 4 per cent, while the percentage of children in such households fell from 15 per cent to 7 per cent. Women aged 65 or over faced a significantly higher risk of consistent poverty than men of that age.

Distinguishing between households where the reference person is aged less than 65 years and those where the HRP is 65 years or over has no effect on the consistent poverty rate whereas the former are substantially more likely to fall below the 60 per cent median income line. This reflects the fact that there is a much weaker relationship between low income and basic deprivation for the elderly. While current cash income is an imperfect indicator of living standards for many social groups, the correlation between the two is particularly weak among older people – the elderly in general have higher living standards than their modest incomes would suggest.

This is not a new finding although the discrepancy has increased in recent years. Layte *et al.* (1999) found that there are many reasons why the link between low income and risk of material deprivation is weak among older people. First, most elderly benefit from a range of ‘free schemes’ provided by the state which are not available to the rest of the population (free travel, free electricity, free telephone allowance etc.) and which are generally omitted in calculations of older people’s current incomes. Second, many elderly people have accumulated significant resources, which help sustain their expenditure requirements (e.g. most elderly own their own homes outright and are not required to provide for mortgage and rent systems). Elderly persons are also likely to be buffered from extreme deprivation through the operation of family support systems. The point is not that low incomes are unimportant as an indicator of social disadvantage or that trends towards increasing numbers below income poverty thresholds are not a cause for concern for anti-poverty policy. It is rather that poverty measures whether income or deprivation designed to operate across the entire population may have significant limitations in grasping the complexities of the situation of any particular sub-group. Thus cash incomes may be less crucial as a means of alleviating elderly deprivation than is the case for other sectors of the population. On the other hand, for the elderly, policies focused on quality rather than cost of housing and health and social services may be particularly important.

# 6. PERSISTENT INCOME POVERTY AND DEPRIVATION

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## 6.1 Introduction

This report, like most poverty research, has so far concentrated on cross-sectional poverty figures, i.e. the proportion of individuals or households below a set poverty threshold at a single point in time. This information is important and can tell us a great deal about the risks that certain groups face of poor living standards and social exclusion. However, in recent years there has been an increasing interest in using dynamic, or longitudinal measures of poverty as awareness has grown of the importance of time in the experience of poverty. Although poverty is never welcome, short spells of low income are unlikely to seriously impact on living standards and damage life chances. Long term, or persistent poverty on the other hand can seriously harm quality of life and lead to a qualitatively different experience of deprivation. The growing awareness of the importance of persistent poverty in social policy circles in the EU led at the Laeken summit in 2001, to the adoption of a persistent poverty measure as one of 18 common statistical indicators of social inclusion. In this chapter we present findings using this measure and examine both the extent of and trends in persistent poverty in Ireland.

We have examined longitudinal poverty measures before in ESRI poverty monitoring reports (see Layte *et al.* 2001a), but our approach there was to look at the experience of poverty across a five year period (1994-1998) and analyse whether poverty was a more common experience when viewed longitudinally rather than cross-sectionally. Having found that it was, we also examined the processes leading to and from income poverty. Here we take a different approach and look at trends in persistent poverty since 1997 using the Laeken measure where persistent poverty is defined as being below the 60 per cent of median income poverty line in the current year and for two of the three previous years. This approach combines aspects of cross-sectional and longitudinal analyses since we are still using point in time measures, but these reflect longitudinal experiences. As previous chapters have shown, however, results often depend on the income poverty line adopted, thus here we examine results for different income poverty lines.

The need to have data for a four-year period for the same individual means that we can only examine trends in persistent poverty from 1997 onwards and choose here (as in the rest of the report) to report findings for 1997, 1998, 2000 and 2001. This requirement also means that we have to deal with the troubling issue of attrition to the Living in Ireland sample across the period. As explained in Chapter 2 weighting can be used to ensure that the sample in each year remains representative of the national population, but unfortunately we cannot analyse the data for respondents who did not respond to the survey for each of the four years summarised in the persistent poverty measure. This means that the sample used in this chapter is smaller than in previous chapters, but remains representative.

## 6.2 Overall Levels of Persistent Poverty

In Table 6.1 we show the overall proportion of persons who experienced persistent poverty in 1997, 1998, 2000 and 2001 using the 60 per cent and 70 per cent median income poverty lines. To reiterate, to be persistently poor the person must be poor in the year in question and also poor in two of the previous three years. Table 6.1 shows that using both the 60 per cent and 70 per cent lines, persistent income poverty increased between 1997 and 2001, though only marginally using the 70 per cent line.

**Table 6.1: Percentage of Persons Below Persistent Median Relative Income Poverty Lines (Based on Income Averaged Across Individuals), Living in Ireland Surveys 1997, 1998, 2000 and 2001**

Equivalence scale A (1,.66,.33) Poverty Line	Percentage of Persons Below Line			
	1997	1998	2000	2001
60% median income line	10.1	10.3	12.7	15.6
70% median income line	21.0	21.0	18.7	22.0

The 60 per cent line increased from 10 per cent to 16 per cent over the period and the 70 per cent increased from 21 per cent to 22 per cent, although this actually fell to 19 per cent in 2000. If we compare these results to the cross-sectional median income poverty lines in Table 3.4 (scale A), we can see that the level of persistent poverty is lower than for cross-sectional poverty (the latter was 22 per cent using the 60 per cent line and 29 per cent using the 70 per cent in 2001), but the trend from 1997 to 2001 is very similar with a sizeable increase using the 60 per cent line (the proportionate rise in persistent poverty is greater) and a marginal increase using the 70 per cent line. Worryingly, the rate of increase in persistent poverty is larger than for cross-sectional poverty. For example, in 1997 the persistent poverty figure was 56 per cent of the cross-sectional figure, whilst in 2001 it was 71 per cent. This shows that the poor in 2001 were far more likely to be long term poor (3+ years) rather than short term with all the attendant implications this has for financial strain, psychological distress and physical health (see Layte *et al.* 2001a). The poor are thus relatively income immobile, possibly as a result of the poverty line itself moving further away from them,



but also because a large proportion of the poor are elderly and the incomes of the elderly are very stable over time. Evidence of both these points are given by findings in Chapter 3. First, the average ‘gap’ between the incomes of the poor and the poverty line has increased steadily from 1994 to 2001, as has the proportion of the poor made up of the elderly.

Having examined the overall patterns of persistent poverty we can now examine the manner in which the risk of persistent poverty varies across individuals with different characteristics. Here we use the same characteristics as used in previous chapters: the type of household the individual lives in, in terms of number of adults and children; the activity status of the household reference person and the risks of poverty for different age groups and for men and women. We start the analysis with the last of those variables – the age and sex of the individual.

### 6.3 Age and Gender

Table 6.2 gives the risks that different age groups face of experiencing persistent income poverty. It shows that in all four years the elderly face the highest risk of persistent income poverty – 33 per cent in 1997 rising to 47 per cent in 2001, with difference between the elderly and younger adult population growing throughout the period. Whereas in 1997 the figure for the elderly was roughly twice that of the non-elderly adult population, by 2001 the elderly rate was 2.7 times greater.

**Table 6.2: Percentage of Persons Below 70 Per Cent Persistent Median Income Poverty Line by Age, Living in Ireland Surveys 1997, 2000 and 2001**

	1997	1998	2000	2001
Adults				
Aged 18-64	16.9	17.3	13.2	16.3
Aged 65 or more	32.9	37.1	43.1	46.9
Children (aged under 18)	24.4	21.4	19.8	23.6

Whereas the elderly have experienced a 14 per cent increase in persistent poverty risk, that for the non-elderly adult population has actually decreased marginally. The risk of persistent poverty for children remained stable over the period.

**Table 6.3: Percentage of Persons Below 70 Per Cent Persistent Median Income Poverty Line by Age and Sex, Living in Ireland Surveys 1997, 1998, 2000 and 2001**

	1997		1998		2000		2001	
	Male	Female	Male	Female	Male	Female	Male	Female
All Adults	17.3	21.8	18.7	22.9	15.3	21.1	18.9	23.7
Aged 18-64	16.4	17.4	17.7	16.8	12.3	14.2	16.0	16.6
Aged 65 or more	22.6	41.2	24.2	46.9	33.4	50.1	36.9	53.8

Moving on to the distribution of poverty by sex, Table 6.3 breaks the adult age groups down by sex and shows that the risk of persistent income poverty is higher for women in both age groups (as with the cross-sectional figures), but the differential is particularly high among the elderly, although the gap has been decreasing over

the period covered as the risk for elderly men has increased faster than that for elderly women. This pattern among the elderly is due largely to the fact that women are less likely to have occupational pensions than men and are more likely to receive a non-contributory pension compared to men. However, as the risk of income poverty has increased for all elderly people, elderly men are now more likely to fall under the poverty line anyway.

## 6.4 Risk, Incidence and Household Composition

We have seen in several chapters that certain types of households are more likely to experience both income poverty and consistent poverty, thus we would expect that this pattern would also extend to persistent poverty.

**Table 6.4: Percentage of Persons Below 70 Per Cent Persistent Median Income Line by Household Composition Type, Living in Ireland Surveys, 1997, 1998, 2000 and 2001**

	1997	1998	2000	2001
1 adult	45.6	50.9	49.0	47.9
2 adults	21.2	23.6	28.8	32.0
3 or more adults	7.1	9.4	8.1	9.8
2 adults, 1 child	14.2	14.3	15.4	22.9
2 adults, 2 children	7.6	8.9	7.5	10.7
2 adults, 3 children	22.8	16.1	19.6	20.1
2 adults, 4 or more children	42.4	30.8	46.3	45.1
1 adult with children	38.6	32.4	36.5	21.6
3 or more adults with children	25.0	26.4	9.1	16.8
All	21.0	21.0	18.7	22.0

Table 6.4 gives the risk of persistent income poverty for households of different compositions and shows that, as with the cross-sectional figures, that single person households (a large number of whom would be elderly women), single parent households and couple households with larger numbers of children are more likely to be persistently poor. However, trends for these three groups have been going in different directions with the risk for single parent households decreasing substantially over the period from 39 per cent in 1997 to 22 per cent in 2001. On the other hand the risk for single person households and households with large numbers of children have been increasing.

**Table 6.5: Composition of Persons Below 70 Per Cent Persistent Median Income Line by Household Composition Type, Living in Ireland Surveys, 1997, 1998, 2000 and 2001**

	1997	1998	2000	2001
1 adult	15.5	17.5	18.9	15.8
2 adults	12.0	13.9	19.2	18.1
3 or more adults	5.3	7.4	7.7	8.1
2 adults, 1 child	4.6	5.0	7.1	9.3
2 adults, 2 children	5.3	5.8	5.6	6.5
2 adults, 3 children	12.9	8.6	6.8	6.8
2 adults, 4 or more children	11.9	9.9	17.9	15.7
1 adult with children	4.4	3.9	5.6	3.1
3 or more adults with children	28.3	27.8	11.4	16.7
All	100.0	100.0	100.0	100.0

If we look at which groups make up the persistently income poor in Table 6.5, single person and households with large numbers of children figure again, but the more numerous groups of two adult households and households with large numbers of adults make up a large proportion, with the former becoming more important over the period (a large proportion of this group would be elderly couples).

## 6.5 Labour Force Status

In this section we move onto the risks associated with different labour force status' and how this translates into incidence figures, i.e. the composition of those under our two poverty lines. Table 6.6 begins the analysis showing the risks for different groups using the income poverty measure and shows, as with the cross-sectional measure, that the retired, those on home duties and particularly those who are ill/disabled all have large risks of persistent income poverty, risks that have increased substantially over the period. The ill/disabled for example have seen their risk of persistent income poverty increase from 45 per cent in 1997 to 62 per cent in 2001. In contrast, the risk for the self-employed has fallen from 16 per cent to 10 per cent and that for the unemployed has almost halved from 58 per cent to 34 per cent.

**Table 6.6: Percentage of Persons Below 70 Per Cent Persistent Median Income Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1997, 1998, 2000 and 2001**

	1997	1998	2000	2001
Employee	7.2	3.6	7.5	9.2
Self-employed	16.3	10.6	11.5	9.5
Farmer	18.2	23.8	17.4	24.4
Unemployed	58.0	64.5	50.3	34.0
Ill/disabled	45.0	51.1	49.1	61.9
Retired	18.2	21.8	26.2	35.6
Home duties	39.9	49.5	37.0	47.1
All	20.8	20.6	18.7	21.8

What implications do these changes in poverty risk have for the composition of the persistently poor? Table 6.7 shows that whereas in 1997 the unemployed were the largest group in persistent poverty at 26 per cent followed closely by those on home duties, by 2001, the latter were the largest group at 28 per cent and the unemployed made up a relatively small proportion at 6 per cent.

Over the same period employees have become the second largest group behind those on home duties at 20 per cent with the ill/disabled and retired becoming more important groupings.

**Table 6.7: Composition of Persons Below 70 Per Cent Persistent Median Income Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

	1997	1998	2000	2001
Employee	14.5	7.6	18.8	20.3
Self-employed	7.9	5.3	6.3	4.9
Farmer	8.1	10.3	7.6	8.8
Unemployed	26.1	22.1	11.4	6.1
Ill/disabled	8.3	8.8	14.1	14.6
Retired	11.5	14.7	16.4	17.7
Home duties	23.7	31.3	25.2	27.6
All	100.0	100.0	100.0	100.0

## 6.6 The Relationship Between Persistent Income Poverty and Lifestyle Deprivation

This chapter has shown that although the overall level of persistent income poverty is lower than the proportion income poor in any one-year, this proportion has increased over time. We also saw that those who become poor have a high probability of remaining poor and that this tendency has also increased over time. Moreover, just as some groups were more likely to experience poverty in any one year, these same groups are also at a higher risk of experiencing persistent income poverty. We have seen for instance that the risks of being poor for an extended period are very high for the elderly and particularly elderly women, as well as those who are ill/disabled or on home duties compared to the general population and particularly those active in the labour market.

However, as Chapter 5 of this report showed, the groups who experience high rates of income poverty are not necessarily those who also experience lifestyle deprivation. It was clear for instance that the elderly actually had a lower risk of experiencing lifestyle deprivation than the population aged under 65 years. As explained in Chapter 5, this rather strange situation stems from the fact that levels of income poverty have been driven by the movement of the average income, fuelled by increases in employment and wages and salaries away from the income levels of groups such as the elderly and those on social welfare over the 1990s. Yet, social welfare and pension recipients have also seen their real standard of living rise over the period thus levels of deprivation among this group have actually fallen dramatically. As argued before, this shows that income poverty alone is not a good guide to the experience of poverty and that the identification of the poor is greatly helped if we augment the income measure with a deprivation measure. That said, we would also expect that being income poor for an extended period would lead to an increase in the probability that the person would be deprived and, moreover, that this would have a damaging impact on their lifestyle.

In this section we first examine the relationship between income poverty, persistent income poverty and lifestyle deprivation before analysing whether the experience of persistent poverty also leads to an increase in the experience of economic strain.

We would expect, if income poverty measures have any valid relationship to the actual experience of poverty and hardship, that as

the period of poverty increases the probability that the person will experience generalised deprivation will increase. Given this, we would expect that our persistent poverty measure would have a stronger relationship to basic deprivation than a cross-sectional poverty measure as used in Chapter 3. To examine whether this is so we created three groups – the first are not poor in 2001 and thus have not been persistently poor. The second group were found to be poor in 2001, but had not been persistently poor. Finally, the third group are the persistently poor.

**Table 6.8: Proportion Experiencing the Enforced Absence of 1 or more Items on the Basic Deprivation Index by Poverty Group in 2001**

Group	Proportion Deprived
Not Poor	7.6
Poor, but not Persistently Poor	13.9
Persistently Poor	14.5

Table 6.8 shows that there is a clear difference between the two groups who have experienced income poverty and those that have not in the proportion who have also experienced basic deprivation. This difference is not as pronounced between the currently, but not persistently poor group and the persistently poor. This suggests that the impact of longer-term income poverty is not a great deal more than experiencing poverty in any one year in terms of leading to deprivation. However, this finding is not consistent with either recent Irish research (Layte *et al.*, 2001a) or European evidence (Whelan *et al.*, 2003a). This may be because persistent poverty is increasingly dominated by the elderly in Ireland, a group where the link between poverty and deprivation is weaker.

**Table 6.9: Proportion Experiencing Great Difficulty in Making Ends Meet (Economic Strain) by Poverty Group in 2001**

Group	Per Cent Experiencing Economic Strain
Not Poor	6.4
Poor, but not Persistently Poor	9.9
Persistently Poor	15.9
Persistently Poor and Deprived	48.2

Table 6.9 shows persistent poverty and it has a larger impact on the experience of economic strain. Only 6.4 per cent of those who are not poor are experiencing economic strain in 2001, whereas if we look at those who are poor, but not persistently poor almost 10 per cent are experiencing some difficulty in making ends meet. If we then move to those who are experiencing persistent income poverty this proportion again rises to almost 16 per cent. These results suggest that as the period of income poverty increases we do see a pronounced impact on the person as we would expect from a valid poverty measure. These results are also in line with past research in Ireland (Layte *et al.*, 2001a). However, as Table 6.9 also shows, if we combine the persistent poverty measure with a deprivation measure, the effect is rather startling with almost half of all people who are both persistently poor and deprived in 2001 experiencing economic

strain. This suggests that the experience of lifestyle deprivation has a far more severe impact on economic strain than income poverty alone, as has been shown in recent work on European data, although as we have seen, as the period of income poverty increases we would expect that the probability of deprivation also rises (Whelan *et al.*, 2003b).

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## 6.7 Summary and Conclusions

In this chapter we have examined the extent of persistent poverty in the Living in Ireland Survey and its distribution across different groupings. Although the experience of poverty is always unwelcome, in the short term it is unlikely to damage living standards substantially or impact on life chances. However, if a person remains poor for a long period this can be far more serious and has come to be recognised in both policy and academic circles as a major problem. Here we have used both the persistent poverty measure advocated in the Laeken summit and a persistent measure based on the consistent poverty measure to examine trends in poverty from 1997 to 2001. An examination of the overall measures shows persistent income poverty has been increasing across the period from 1997 to 2001, a very similar pattern to that found using the cross-sectional measures.

If we disaggregate the risk of experiencing persistent income poverty by various characteristics we find that women are far more likely than men to be persistently income poor. If we look at different age groups we find that the elderly have a much higher risk of experiencing persistent income poverty than non-elderly groups.

When we look at the impact of different household compositions on poverty risk we find single person and single parent households have a high risk of experiencing persistent income poverty, as do those living in households which have larger numbers of children. Turning to the patterning of poverty by the labour force status of the household reference person we saw that those living in a household where the reference person is ill/disabled, retired or on home duties have a very high risk of experiencing persistent poverty. In terms of the composition of those under the income poverty measure we found that the employed were a major grouping (although their absolute risk was very low) alongside those in households where the reference person was on home duties.

As suggested earlier, the importance of persistent poverty measures is that they can tell us whether the poor are made up of the same or different individuals every year. If the latter, then poverty is of less concern since few will be experiencing long term deprivation and disadvantage (although the impact of poverty even in the short term should not be underestimated). However, if the majority of people remain poor for a considerable period this can have a serious impact not only on the lives of those immediately affected, but can impact in the long term on social cohesion throughout a society. High levels of persistent poverty also suggest that social policy is not responding effectively or intervening early enough to prevent poverty becoming long term. In Layte *et al.* (2001a) an analysis of

Irish poverty dynamics showed that the probability of exiting poverty decreased the longer the spell persisted suggesting that early intervention in the poverty process was essential. Not only will early intervention be more effective, but as Layte *et al.* (2001a) also showed it would help reduce the huge financial, psychological and health impact of long-term poverty. As the last section of this chapter has shown, persistent income poverty increases the probability that the person will experience lifestyle deprivation and other negative consequences such as economic strain.





# 7. REASSESSING THE CONSISTENT POVERTY MEASURE

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## 7.1 Introduction

We have seen in Chapter 5 that the ‘consistent’ poverty indicator measured as the percentage falling below the 60 per cent relative income line and experiencing basic deprivation in terms of eight non-monetary indicators, had by 2001 fallen to almost one-third the level recorded in 1994. In the recent *Review of the National Anti-Poverty Strategy* (2002) under the Programme for Prosperity and Fairness, the government set revised targets for the period to 2007, including one for poverty reduction framed in terms of this measure. We have argued in previous publications that measuring poverty and setting poverty targets are different exercises, and that poverty targets framed purely in terms of this ‘consistent poverty’ measure are inadequate. We have also argued that it is important to distinguish and address two key questions that arise with respect to the consistent poverty measure – as a measure rather than a target.

The first question is whether the specific set of indicators used to define basic deprivation up to 2001 continue to capture what was regarded as generalised deprivation in terms of living standards up to that point: was it still a satisfactory measure in 2001? The second issue is whether, looking forward from 2001, an expanded set of items would provide a more satisfactory basis for poverty monitoring in the future.

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## 7.2 Reassessing the Measure

In earlier analyses (Layte *et al.*, 2001a and Nolan *et al.*, 2002) we investigated, in some depth, the possibility that the basic deprivation measure needed to be adapted and the set of items employed expanded. It was shown that expectations had indeed adjusted rapidly to increasing levels of possession of certain items. Five items in particular become available to a substantial majority of households, and also came 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, up to and including the 2000 data, in the relationships between deprivation indicators, with distinct basic, secondary and housing dimensions being distinguishable.

We also looked in that analysis at the households who would come to be included among the poor if the basic deprivation index was indeed broadened to include those items. In terms of level of 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. Layte *et al.* (2001a) and Nolan *et al.* (2002) concluded that the evidence suggested that the original set of basic items was more successful in capturing generalised deprivation than an expanded set, and that in terms of criteria of reliability and construct validity, the consistent poverty measure performs remarkably well over time.

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. Given the pace of change during this period, in Section 7.3, we again look at the households that would be counted as ‘consistently poor’ if the set of items were now broadened to include those items.

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### 7.3 Potentially Poor Households

We now explore what would happen if the basic deprivation index were widened to include additional items in measuring poverty in 2001. For this purpose we begin by distinguishing between three groups of households. The first is the ‘consistently poor’: These comprise the households who in 2001 fell below 60 per cent of mean income and were experiencing basic deprivation with the unchanged set of eight items. The second are households fulfilling that income criterion but not the basic deprivation one, but who are suffering enforced absence of one of the five additional items we have identified i.e. central heating, a telephone, a car, a colour television and presents for family and friends at least once a year. This group we label the ‘potentially poor’, and it constitutes an additional 5.9 per cent of households. Finally we have those households who fulfil neither criteria and whom we label the ‘non-poor’.

When we compare the potentially poor with the ‘consistently poor’ the most striking difference between the groups is produced by a combination of age and having children. From Table 7.1 we can see that over one in two of the potentially poor are aged over 65 years compared to less than one in five of the ‘consistently poor’. When we look at households with children where the head of household is under 65 years the position is reversed and they make up half the consistently and one-fifth of the potentially poor. Thus the inclusion of the additional items disproportionately identifies elderly households. Such households we should note, have not only experienced a sharp increase in income poverty since 1994 but experienced a significant increase in such poverty between 2000 and 2001 and the pattern is not dissimilar to that observed earlier at the 70 per cent of median income. Thus, while elderly households below

70 per cent of median income have a relatively low probability of experiencing basic deprivation, they have a much higher risk of experiencing basic deprivation.

**Table 7.1: Composition of ‘Potentially Poor’ and ‘Consistently Poor’ Households by Age of Reference Person and Presence of Children, Living in Ireland Surveys 2001**

	Potentially Poor	‘Consistently Poor’
Aged < 65 No Children	26.8	34.1
Aged <65 with Children	20.8	47.9
Aged 65+	52.4	18.0
All	100.0	100.0

In attempting to assess whether there is now a case for incorporating the additional deprivation items relating to central heating, a telephone, a car, a colour TV and presents, we now address the consequences of being in one rather than another of these categories. In order to do so we consider the degree of variation that exists between these three groups in terms of the subjective consequences one would expect to be associated with poverty. We look first at the way experience of economic strain and dissatisfaction varies across the groups making use of two indicators involving responses by the household reference person. The first is a measure of the extent to which the household is ‘able to make ends meet’ on their current household income. Since our interest is in the consequences of poverty we distinguish between those reporting ‘with great difficulty’ and all others. The second item relates to satisfaction with financial situation and we distinguish those ‘not at all satisfied’ from the remainder. Table 7.2 presents the outcomes on these variables for both the potentially and ‘consistently poor’. The first indicator shows a distinct difference between the potentially poor and ‘consistently poor’, with one in four of ‘consistently poor’ households, experiencing ‘great difficulty’ in making ends meet compared with only 3 per cent in potentially poor households. Satisfaction with the financial situation of the household also shows a substantial difference, with only 14 per cent of potentially poor households expressing such dissatisfaction compared to almost 37 per cent of the ‘consistently poor’ households. In each case, though, the potentially poor do appear to be under greater financial strain than the non-poor. The potentially poor thus occupy a position intermediate to the consistently non-poor and the ‘consistently poor’ although they appear to more closely resemble the former than the latter.

**Table 7.2: Economic Strain by Poverty Status, Living in Ireland Survey, 2001**

	Non-Poor	Potentially Poor	‘Consistently Poor’
	%	%	%
Having Great Difficulty Making Ends Meet	0.7	3.2	25.6
Not satisfied at All with Economic Situation	3.6	14.1	37.1

The next outcome to which we turn our attention is psychological distress. We use the General Health Questionnaire and ask respondents 12 questions about their present mental and emotional condition ‘over the last few weeks’ in comparison to their normal condition. Normally a score of three plus is taken as a threshold and respondents with higher scores are classified as suffering from psychological distress. In Table 7.3 we show the percentage scoring above this threshold by our poverty classification. For the ‘consistently poor’ we find that just below 40 per cent are found above the GHQ threshold. Unlike our economic strain and satisfaction indicators this figure is almost as high for the potentially poor. The psychological distress figures for the potentially poor are likely to be substantially influenced by their age profile since the elderly are more likely to have poorer physical health and this is strongly associated with higher GHQ scores. As we would expect, the non-poor have substantially lower proportions displaying psychological distress than either of these groups.

**Table 7.3: Psychological Distress and Poverty Status, Living in Ireland 2001**

	Non-Poor	Potentially Poor	‘Consistently Poor’
Per cent Above GHQ Threshold	11.9	38.7	39.3

## 7.4 Looking Forward

We have seen that the use of income and deprivation indicators in combination continues to allow us to identify sub-groups of households who are ‘consistently poor’ – having low incomes and high levels of deprivation – who are clearly distinctive in terms of exposure to economic strain and psychological distress. Furthermore, the socio-demographic profile of such households would reasonably be expected to be associated with poverty and deprivation – more so than that of those simply below income thresholds. Finally, unlike the income poverty lines, the consistent poverty measures showed significant reductions in poverty during Ireland’s period of unprecedented economic growth since 1994.

What is crucial in this approach to poverty measurement has never been the specific set of items employed. The consistent poverty measure was never intended to be a mixture of relative income and absolute or fixed deprivation indicators, and the set of items that had proved satisfactory in 1987 might fail to do so a decade or more later. In particular the notion that expectations and perceptions of need will change over time as general living standards rise is central to a relative conception of poverty. In the previous section we reported on the latest of a number of attempts to reassess the set of basic deprivation items in light of the changing economic situation. We concluded that the combined income and deprivation measure, as originally constituted, continued to identify in the 2001 sample a set of households experiencing a level of generalised deprivation, a degree of economic strain and exposure to

psychological distress that marks them out from the rest of the population. We did, however, identify an intermediate group who required particular attention and about whom there might be different views as to whether the label ‘poor’ should be attached.

Before offering a final judgement on the need to expand or modify the set of items comprising the deprivation component of the consistent poverty measure in the following sections, rather than addressing how the consistent poverty measure has performed in the past, we seek to address the distinct and in some respects more difficult issue of how it will behave in the future and whether it will continue to constitute a satisfactory monitoring tool. Here we find that, looking forward, a measure incorporating a broader set of items is likely to serve as a more satisfactory monitoring tool. We conclude by bringing out the implications for poverty monitoring and targeting.

## 7.5 Deprivation Indicators and Trends

We can illustrate the issues at hand by first examining trends over time in the levels of deprivation reported for the items that now constitute the basic deprivation items. Table 7.4 shows that between 1994 and 2001 a sharp decline was observed in the level of deprivation on each of the items in the set. In 1994 the level of deprivation ranged from 4 per cent for ‘not having a substantial meal’ to 18 per cent for ‘debt problems’. The remaining items were in the range 5 per cent to 9 per cent. By 2001 the figure for ‘a substantial meal’ was 1 per cent and for debt only 6 per cent. Six out of the eight items were lacked by less than 2 per cent of sample households. This situation poses potentially serious problems for the continued use of the consistent poverty measure incorporating these basic deprivation items in the future. Given such low proportions doing without most of the items, distinguishing real change from random variation in survey results is likely to be extremely difficult. Further reductions in the numbers reporting basic deprivation are likely to depend largely on the debt item, the only one on which a significant proportion were still lacking in 2001 (by its nature, this item may itself adjust to changed expectations about what constitute ‘ordinary living expenses’).

**Table 7.4: Trend in Percentage Lacking Basic Deprivation Items**

Item lacked	1994	1997	2001
		%	
Meal with meat, chicken or fish	5.0	1.9	0.9
Warm waterproof overcoat	7.0	3.2	0.6
Two pairs of strong shoes	8.2	5.2	1.2
Roast once a week	8.1	4.7	0.9
New not second hand clothes	9.6	7.7	2.6
No substantial meal in past two weeks	4.2	1.7	0.9
Without heating in past year	9.2	2.4	1.2
Debt Problems	17.9	10.3	6.0

In this light it would seem essential, while continuing to collect the data required to measure consistent poverty with the original set of deprivation items, to also develop an alternative measure

encompassing a revised and expanded set of basic deprivation items for future monitoring purposes.<sup>10</sup>

In order to be able to produce an unchanged measure over time, we have up until now relied on items available since the original ESRI household survey in 1987. However, in analysing the 2000 LIIS survey data we made use of additional items not available in that survey but included in the Living in Ireland Survey as part of the European Community Household Panel Study (The ECHP surveys in other countries did not, however, include the full set of items contained in the Irish version). In attempting to develop an alternative basic deprivation index, we focused on the set of items common to all ECHP countries, which has the considerable advantage that we can then make comparisons both across time and countries.

A factor analysis of the ECHP data identified five distinct lifestyle deprivation dimensions, one of which came relatively close to the basic deprivation dimension that we had found using the LIIS data. This dimension contained seven items that broadly corresponded to those comprising the LIIS basic deprivation dimension. The extent of uniformity across European countries extended beyond being able to identify this dimension in each country. In most countries the difference between those below versus above 60 per cent of median income in the percentage reporting enforced absence is most pronounced for the basic set, and least pronounced for the housing-related items. This confirms once again the importance of distinguishing between items rather than simply constructing a summary deprivation index across all available items, and the salience of the items in the basic set in particular.

To bring out the relationship between the indicators now included in the 'basic' set available in the ECHP and those in our original basic set available for Ireland back to 1987, Table 7.5 shows both sets. Of the seven items appearing in the 'basic' dimension in the ECHP, two were also included in the basic set we have been using from the LIIS – namely 'having a meal with meat etc' and 'being able to afford new not second-hand clothes'. Two others relate to areas also covered in our original set – namely heating and debt/arrears – but with different indicators. The other three are being able to replace any worn-out furniture, have friends or family for a meal once a month, and having a week's annual holiday away from home. The items in the original set but not in the ECHP set, on the other hand, are being able to afford two pairs of shoes, a warm waterproof overcoat, and a roast or equivalent once a week.

<sup>10</sup> Note that such data will in the future be collected by the CSO for the new survey called EU-SILC, which is to replace the ECHP.

**Table 7.5: Basic Deprivation Items from LIIS and ECHP**

Original LIIS Item	Alternative ECHP Item
Meal with meat, chicken or fish	Meal with meat, chicken or fish
New not second hand clothes	New not second hand clothes
Two pairs of strong shoes	
Roast once a week	
Warm waterproof overcoat	
No substantial meal in past two weeks	
Without heating in past year	Keeping home adequately warm
Experienced debt problems arising from ordinary living expenses	In arrears on rent, utilities and hire purchase
	Replacing any worn-out furniture
	A weeks annual holiday away from home*
	Having friends or family for a meal once a month

\* Not included in final alternative set

## 7.6 Constructing Alternative Deprivation Indices

These results suggest that, in seeking a set of deprivation items suitable for monitoring poverty in Ireland (together with income), the set of items identified by the factor analysis as comprising what we have called ‘basic deprivation’ in the ECHP, represent serious candidates. It is, however, also important to look closely at the behaviour of the individual items to understand the implications for the consistent poverty measure of the inclusion of a specific item. In Table 6.6 we show the trend over time in the extent of deprivation on each of the items loading on the basic deprivation identified employing the set contained in the ECHP.

We see first that there is very considerable variation across the items in the extent to which deprivation was reported in 1994. Thus for the two items included in the original deprivation index, ‘having a meal with meat etc.’ and ‘being able to afford new not second-hand clothes’ the respective percentages were 5 per cent and 10 per cent. For the ‘adequate heating’ item the percentage was also 10 per cent. For the other items the figures were substantially higher. Almost one in five reported being unable ‘to have friends or family for a meal or drink once a month’ and the same number was having problems with arrears. The figure rises to one in three for being able to ‘replace worn out furniture’ and to almost one in two for being unable to afford ‘a weeks annual holiday away from home’. Given the scale of reported deprivation on these four items in 1994 and the fact that there would not have been a widespread consensus that they were necessities, this set of items would certainly not have constituted a satisfactory alternative in constructing the ‘consistent poverty’ measure from 1994 to date.

**Table 7.6: Trend in Percentage of Persons Lacking Alternative Basic Deprivation Items**

Item lacked	1994	1997	2001
	%	%	%
Meal with meat, chicken or fish	5.0	1.9	0.9
New not second hand clothes	9.6	7.7	2.6
Adequate heating	9.7	6.2	2.8
Arrears relating to mortgage payments or utility bills	19.5	11.7	6.1
Having friends or family for a meal or drink once a month	21.8	12.7	6.6
Replacing worn out furniture	33.4	20.8	14.0
A week's annual holiday away from home	45.5	35.0	22.9

However, Table 7.6 shows that between 1994 and 2001 a substantial decline in deprivation was observed for each of these items. As we have already seen, for the original NAPS items reported deprivation fell respectively to 1 per cent and 3 per cent. Similarly by 2001 the proportion without adequate heating fell to 3 per cent and that for arrears and being unable to entertain family or friends fell to 6 and 7 per cent respectively. The figure for replacing worn out furniture now stood at 14 per cent and that for holidays at 23 per cent. As with the original set of basic deprivation items, the additional items included in the ECHP have been substantially affected by changing economic circumstances.

Taken together, the results of the factor analysis, the relationship of basic deprivation to income poverty in the ECHP, and the trends over time for the original and alternative set of basic items, all suggest that with the exception of the 'holiday' item, the latter may constitute a satisfactory set of basic deprivation in monitoring and analysis of poverty trends for some time into the future. With almost one-quarter reporting inability to afford a weeks annual holiday, it has a deprivation rate almost twice that of any of the other items. As a consequence its incorporation in a consistent poverty measure would mean that the calculation of a poverty rate would be very significantly influenced by the outcome on this single item. This in itself is undesirable. In addition, the nature of the item itself is such that it might be more difficult to purge it of the influence of taste factors than other items in the set. For example, there tend to be different habits as regards holidays among urban versus rural dwellers, and over the age range. We therefore focus here on an alternative consistent poverty measure that does not include the holiday item.

Table 7.7 gives the percentage below 70 per cent of median income, the percentage of persons below this income line and experiencing basic deprivation with our original set of items, and the percentage income poor and missing an item on the alternative basic set. Although income poverty alone rose between 1994 and 2001, the proportion income poor and deprived with our original basic deprivation measure decreased from 15 per cent to 5 per cent. If we use the same income threshold but the alternative set of basic deprivation items, this produces somewhat higher figures but a



similar trend, with a decline from 18 per cent to 11 per cent. This pattern of results suggest that, as these more extreme forms of deprivation effectively disappear, the alternative measure of basic deprivation that we have proposed could serve as an important monitoring tool in capturing the impact of social change on levels of deprivation.

**Table 7.7: Trend in Percentage of Persons Meeting Income and Combined Income-Deprivation Poverty Criteria**

	1994 %	1997 %	2001 %
Below 70% median income	26.7	29.0	29.3
Below 70% of median income and deprived with original basic set	14.5	10.7	4.9
Below 70% of median income and deprived with alternative basic set	18.3	15.5	10.9

## 7.7 Socio- Demographic Profiles

At this point we shift attention from levels to patterns of deprivation. What are the implications of the choice of deprivation items for the nature of the groups identified as being at risk? How do the profile of groups falling below the different thresholds vary? In Table 7.8 we show for alternative measures, the level of poverty risk by labour force status of the household reference person. We see that the poverty rate for each group with the new set of deprivation items lies between those found using the 70 per cent income threshold alone and the consistent poverty measure with the original set of basic items, but much closer to the latter. The percentage poor with the alternative consistent poverty measure is generally about twice the original consistent poverty rate, although for those groups with extremely low consistent poverty rates it is a good deal higher. Thus, while the risk rates differ the pattern is very similar, irrespective of which of these sets of deprivation items one employs, and both measures are sharply distinguished from the income line only. The pattern of socio-economic differentials is thus much sharper with the alternative combined income-deprivation measures than the purely income based measure with the risk level being substantially higher for households where the HRP is ill/disabled, unemployed and in home duties.

**Table 7.8: Percentage of Persons Meeting Alternative Poverty Criteria by Labour Force Status of Household Reference Person**

	Below 70 Per Cent Median Income	Below 70 Per Cent Median + Original Basic Deprivation	Below 70 Per Cent Median + Alternative Deprivation Items
Employee	12.6	1.8	5.3
Self-employed	22.6	0.5	2.8
Farmer	35.9	1.3	7.9
Unemployed	49.2	19.1	31.6
Ill/disabled	69.8	22.5	38.9
Retired	48.9	5.3	11.8
Home duties	59.9	12.3	25.1
All	29.3	4.9	10.9

Turning our attention to risk by household type, Table 7.9 again shows that the alternative consistent poverty measure occupies an intermediate position between the income threshold alone and the original consistent poverty measure. Compared with that original, the alternative deprivation measure shows a smaller gap between households with one adult with children and all other categories, although that group continue to display the highest rate by some distance. On the other hand, two-adult and one-adult only households do rather worse relative to other types as they did with the original set. The groups for whom least change is observed are two adult households with less than three children.

**Table 7.9: Percentage of Persons Meeting Alternative Poverty Criteria by Household Type**

	Below 70 Per Cent Median Income	Below 70 Per Cent Median + Original Basic Deprivation	Below 70 Per Cent Median + Alternative Deprivation Set
1 adult	50.9	7.2	19.5
2 adults	35.1	4.1	11.1
3 or more adults	17.6	1.5	3.4
2 adults, 1 child	26.2	3.3	6.6
2 adults, 2 children	17.8	1.4	2.8
2 adults, 3 children	26.5	3.2	11.5
2 adults, 4 or more children	50.2	10.1	31.9
1 adult with children	51.0	24.4	35.9
3 or more adults with children	25.0	5.5	8.2
All	29.3	4.9	10.9

Categorising households in terms of age/presence of children, Table 7.10 shows that both the consistent poverty measures suggest relatively modest variation across these categories, alternative deprivation measure gives a risk rate that is closer to that for younger households with children. In contrast, relying on an income threshold alone suggests a sharp increase in poverty risk as one moves from households where the reference person is aged under 65 years with no children to those with children, and then to those aged 65 years or over.

**Table 7.10: Percentage of Persons Meeting Alternative Poverty Criteria by Presence of Children and Age of Household Reference Person**

	Below 70 Per Cent Median Income	Below 70 Per Cent Median + Original Basic Deprivation	Below 70 Per Cent Median + Alternative Deprivation
Aged < 65 No Children	19.4	3.9	7.6
Aged <65 with Children	27.8	5.9	12.2
Aged 65+	51.0	2.7	11.6

## 7.8 Validity Assessment

To see how well the alternative income-deprivation measure performs, we can look, as before, at whether those it identifies as poor appear to be exposed to a high degree of subjectively assessed

economic strain and psychological distress. In Table 7.11 we distinguish four groups:

- Those ‘consistently poor’ at 70 per cent of median income employing the original set of basic items.
- Those ‘consistently poor’ with the same income threshold, but the alternative set of deprivation items.
- Those added to the ‘consistently poor’ by expanding the set of deprivation indicators.
- Those not identified as ‘consistently poor’ when either set of indicators is employed

For each group we report the percentage of household reference persons:

1. experiencing ‘great difficulty’ in making ends meet,
2. experiencing ‘great difficulty’ or ‘difficulty’ in making ends meet,
3. ‘not at all satisfied with their financial situation’,
4. above the General Health Questionnaire (GHQ) threshold for psychological distress.

We see from Table 7.11 that one in four of those ‘consistently poor’ employing the original set of basic items are experiencing great difficulty in making ends meet. This falls to one in eight when the alternative set is employed. Since there is obviously an overlap between these two groups – some are ‘consistently poor’ by both – we then look separately at those who are ‘consistently poor’ with the alternative but not the original set. The figure drops to a rather low level of 2 per cent compared to 1 per cent for those poor by neither criterion.

If we broaden the definition of economic strain to encompass those households reporting ‘difficulty’ as well as ‘great difficulty’ making ends meet, we find over 50 per cent of the ‘consistently poor’ with the original set report such strain, compared to 35 per cent of the ‘consistently poor’ with the alternative set of items. Over one in five of those who are drawn in to the ‘consistently poor’ by use of the alternative set report such strain, compared with only one in twenty of those who are not ‘consistently poor’ with either set.

When we look at the percentage ‘not at all satisfied with their financial situation’, we again find a clear continuum. Over one-third of the original ‘consistently poor’ group are not at all satisfied with their economic situation this falls to one in four for the newly defined group and to just less than one in six for those who are added to the original group by the expansion of the definition. This final rate is still almost four times higher than that for those who are poor on neither definition. It is the relationship to psychological distress where the original and alternative definitions are closest. Four out of ten of the original ‘consistently poor’ are above the threshold and one in three are above the revised definition. Among those who are added by the latter, three out of ten are above the threshold. In each case these levels are substantially above those who are poor using neither definition.

**Table 7.11: Economic and Psychological Strain by Alternative Poverty Criteria**

	<b>'Consistently Poor' with Original Basic Set</b>	<b>'Consistently Poor' with Alternative Basic Set</b>	<b>Not 'Consistently Poor' Using Original Set but Poor the Alternative Set is Employed</b>	<b>Not 'Consistently Poor' with Either Set</b>
Per cent great difficulty in making ends meet	25.7	12.4	2.0	0.9
Per cent great difficulty or difficulty in making ends meet	54.2	35.5	21.0	4.8
Per cent not satisfied at all with financial situation	36.9	24.3	15.4	4.0
Per cent above GHQ threshold	39.9	34.9	30.6	13.7

## 7.9 Conclusions

In this chapter we have asked whether, in 2001, the set of deprivation items included in our measure of 'consistent poverty' were still serving their intended purpose, of capturing what would be widely seen as generalised deprivation. This involved looking again at the items currently included in the basic deprivation index, and at the households who would be counted as 'consistently poor' if that index were broadened to include certain other items now widely perceived as necessities. Examining the households who would be counted as 'consistently poor' if the set of deprivation items was broadened by incorporating a number of secondary deprivation items such as a telephone, central heating and a car, we once again found them to be differentiated from those counted as 'consistently poor' using the original eight items in terms of age and the presence of children in the household. This broader index would shift the composition of the group more towards households where the head of household is over 65 years and away from households with children. In terms of levels of economic strain and their financial satisfaction, the two groups remain sharply differentiated. Such evidence supports the argument for maintaining a distinction between the 'consistently poor' and 'potentially poor' for analytical purposes in looking at results for 2001. However, consistent with the fact that levels of psychological distress are higher among the elderly, in part because their physical health is also worse, very little difference was observed between the potentially poor and the 'consistently poor' on the GHQ measure. As we have emphasised in previous reports, the 'potentially poor' are clearly a key group, and there may be different views about the appropriate label to apply to this group. What we can say with confidence is that combining low income with the original set of basic deprivation indicators does identify a set of households in the 2001 sample experiencing generalised deprivation as a result of prolonged constraints in terms of command over resources. On its own this does not tell the whole story, nor could it be expected to capture the distinctive experience of sub-groups such as the elderly. Instead, as we have argued for some time, a poverty target should be framed in terms of several measures that give a more rounded picture of developments. On the

basis of the evidence we have presented, however, we do not feel that incorporating an additional set of secondary items into the consistent measure is the best response to such issues because to do so would weaken its capacity to discriminate between groups in terms of exposure to generalised deprivation.

An alternative strategy involves identifying an alternative set of basic deprivation indicators, which can enter into the construction of consistent poverty thresholds. The consistent poverty measure using a set of basic deprivation items unchanged since 1987 has performed well in terms of such criteria as the stability of the structure of deprivation, the behaviour of the indices over time in comparison with purely income based lines, and the capacity to identify distinctively disadvantaged groups. However, as a consequence of the unprecedented economic growth seen in the second half of the 1990s, the level of deprivation on some of these indicators has become very low by 2001. In this chapter we have sought to address the implications for monitoring poverty into the future.

It has been clear from the outset that the specific items employed in the consistent poverty measure would need to be revised at some point in light of changing expectations and perceptions as general living standards rose. In the analysis presented in this chapter we have taken advantage of the fact that since 1994 a common set of deprivation questions has been employed in the European countries covered by the ECHP. An analysis of these items showed surprisingly, that a common set of dimensions of deprivation or grouping of items emerged across this broad range of European countries (Whelan *et al.*, 2001). In each case, income poverty was most closely associated with the basic deprivation, which is now identified by a somewhat different set of items than was originally the case in Ireland. We then employed this ECHP set of basic items, excluding one relating to holidays, to construct an alternative measure of basic deprivation and of consistent poverty for Ireland. We saw first that the trend over time since 1994 was broadly in line with our original basic deprivation index and consistent poverty measure, although the impact of economic change was sharper for the more extreme forms of deprivation incorporated in the original set. The number of persons in consistent poverty in 2001 was almost twice the corresponding figure with the original basic set. An analysis of the distribution of poverty risk by socio-demographic group showed that the alternative measure behaved very much like the original consistent poverty measure and contrasted sharply with measures based on income thresholds alone. In terms of levels of self-reported economic strain and psychological distress, the group identified as 'consistently poor' by the alternative measure are sharply differentiated from the rest of the sample, though less so than the original 'consistently poor' group.

In the light of the potential difficulties using the original set of basic items, it would now be appropriate to expand the range of monitoring tools to include alternative poverty measures incorporating income and deprivation along the lines developed here.



## 8. SUMMARY AND CONCLUSIONS

In this, the fourth in a series of monitoring poverty reports, we have used the 2001 wave of the Living in Ireland Survey to analyse the evolution of poverty in Ireland. The measurement of poverty is always a controversial issue, thus here, as in previous reports we have used a range of measures that provide a broad overview of different dimensions of poverty. Although it is necessary to have a headline figure for targeting purposes, it is also important to have a range of measures available which can describe the different dimensions of poverty since using one measure alone would lead to a partial account of developments. Here, as before, we employ a range of income poverty lines based on both mean and median statistics. Perhaps more importantly, we also use non-monetary deprivation measures to look at the extent of generalised deprivation and combine this with income poverty measures to produce measures of consistent poverty.

As explained in the Introduction to this report, it has been repeatedly found that among the income poor, a sizeable proportion will not be deprived and this makes it difficult to define these people as poor when our definition of poverty relates to being excluded from participating in what is seen as a generally acceptable lifestyle because of a lack of resources. Moreover, the relationship between relative income and deprivation measures becomes even more problematic during periods of sharp increases in standard of living, such as Ireland has experienced over the last eight years or so when incomes across all groups rose substantially, but some rather more than others. One of the main overall conclusions of this report, as with previous monitoring poverty reports, is thus that poverty should be measured using a number of approaches including non-monetary measures of lifestyle poverty.

Before we go on to extract more overall conclusions, it would first be useful to examine the main findings from the different chapters of the report. In Chapter 3 we began our analysis by examining overall trends in relative income poverty using both mean and median income lines and employing a range of equivalence scales. Using a mean income poverty line, the trend between 1994 and 2001 is of relative stability in the proportion of persons poor with a 3 per cent increase at the 40 per cent line, a 1 per cent increase at the 50 per cent line and small decrease at the 60 per cent line. In contrast, when we use the median income poverty line we

see a clear trend toward increasing poverty with the 50, 60 and 70 per cent lines increasing by 7 per cent, 6 per cent and 2 per cent respectively. Given that the latter results are less influenced by extreme values we have followed European practice in giving greater attention to results based on the median. This, however, has little impact on our conclusions relating to the distribution of poverty risk or the composition of the poor. Such results indicate that the poor themselves are increasingly found under the lower median income lines and this picture of widening disparities is confirmed by the poverty gap measures, which show that the depth of poverty has increased substantially between 1994 and 2001, increasing steadily in each year.

In Chapter 4 we disaggregated the risk of median income poverty by different characteristics and some key trends were revealed. Perhaps the most striking finding was the increasing risk of relative income poverty for older people, or those in households where the reference person is retired, on home duties or ill/disabled. At each income poverty line these groups experienced substantial increases in risk and came to form a clear majority of the income poor. At the same time the unemployed who, until 1998, had always formed the largest group, by 2001 accounted for less than 10 per cent of those under the poverty line, however, defined. This risk profile was also reflected in the household composition categories where risk level for adult only single households, a large proportion of whom would be elderly people, increased sharply, although the risk for single parent households and those households with larger numbers of children are also substantial. As in previous years, women continue to run a higher risk of experiencing income poverty than men and this is particularly pronounced among older women.

At face value then, these poverty figures suggest a worsening situation with increasing poverty overall and particularly worrying developments among particular subgroups such as older people and those out of the labour force such as the ill/disabled and those on home duties. However, these results have to be seen in the context of other results outlined in the report. For instance, although poverty should be seen as relative to the country and time in which it is being measured, it is of considerable relevance whether the real living standards of individuals and households have increased over time (i.e. do households have more income now controlling for inflation). This issue was addressed in Chapter 3 by updating the poverty line from 1994 by inflation and examining what proportion would be under this line in each subsequent year. Using this benchmark, income poverty would have fallen from 30 per cent using the 60 per cent line in 1994 to just 6 per cent in 2001. This analysis demonstrates the manner in which real incomes have improved over this period across the population, even after we control for increases in prices. Nonetheless, real income measures do not reflect the relative nature of poverty, which, as the NAPS definition (NAPS 1997, p. 3) makes clear, is predicated on current norms and expectations.



To further explore such issues in Chapter 5 we employed the consistent poverty measure, which incorporates a non-monetary basic deprivation index. Analysis based on this measure reveals strikingly different trends to those found using a relative income line in Chapters 3 and 4. Using the combined income/deprivation measure that has come to be known as the 'consistent' poverty measure we found that the proportion of households and individuals who are poor declined sharply between 1994 and 2001 from 15 per cent to 5 per cent. However, although consistent poverty was falling across all groups, some groups still had a substantially higher risk of poverty. Single parent households and those who had large numbers (4 or more) of children faced particularly high (though decreasing risks of poverty) as did households where the reference person was ill/disabled, unemployed or on home duties. Interestingly, using the consistent poverty measure those aged over 65 years actually had a below average risk as opposed to the finding using the relative income line where this group had a very high risk.

The finding derives from that well-established fact that the link between low income and risk of material deprivation is significantly weaker among older people. Although it is true that the discrepancy has increased over time. A range of factors contribute weakness of the association such as state provision through free schemes, accumulated resources, lower housing costs and family support systems. We have sought to stress that the conclusion we are led to is not that low incomes are unimportant as an indicator of social disadvantage or that trends towards increasing numbers below income poverty thresholds are not a cause for concern for anti-poverty policy. It is rather that poverty measures, whether income or deprivation, designed to operate across the entire population may have significant limitations in grasping the complexities of the situation for particular sub-groups. Thus cash incomes may be less crucial as a means of alleviating elderly deprivation than is the case for other sectors of the population. On the other hand, for the elderly policies focused on the quality rather than cost of a range of amenities and services such as housing and health and social services may be particularly important.

Chapter 6 undertook an analysis of persistent income poverty measures which have come to be seen as very important in recent years and particularly since the Laeken Summit in 2001. These measure not just whether the person is poor in the current year, but also whether they have been poor in the recent past. Such longitudinal measures are better able to capture the differential impact that long rather than short term exposure to poverty has on an individual and household. In Chapter 6, after examining trends using both the 60 per cent and 70 per cent persistent income poverty lines we analysed the pattern of poverty across different groups using the 70 per cent line. Using this measure we saw a very similar trend to those found using cross-sectional measures in that the persistent measure based on relative income measures showed increasing levels of poverty between 1997 and 2001. It was also clear from this chapter that longer periods of poverty also increased the

probability that the person would experience lifestyle deprivation and economic strain.

In Chapter 7 we returned to the issue of whether the set of deprivation items included in our measure of 'consistent poverty' were still serving their intended purpose, of capturing what would be widely seen as generalised deprivation. This involved looking again at the items currently included in the basic deprivation index, and at the households who would be counted as 'consistently poor' if that index were broadened to include certain other 'secondary' items now widely perceived as necessities. This broader index would shift the composition of the group more towards households where the head of household is over 65 years and away from households with children. However, the two groups remain sharply differentiated in terms of levels of economic strain and their financial satisfaction. Such evidence supports the argument for maintaining a distinction between the 'consistently poor' and 'potentially poor'. Combining low income with the original set of basic deprivation indicators identifies a distinctive set of households in the 2001 sample experiencing generalised deprivation as a result of prolonged constraints in terms of command over resources. On its own, this does not tell the whole story, nor could it be expected to capture the distinctive experience of sub-groups such as the elderly. However, we do not feel that incorporating an additional set of secondary items into the consistent measure is the best response to such issues because to do so would weaken its capacity to discriminate between groups in terms of exposure to generalised deprivation.

A superior strategy involves identifying an alternative set of basic deprivation indicators, which can enter into the construction of consistent poverty thresholds. As a consequence of the unprecedented economic growth seen in the second half of the 1990s, the level of deprivation on some of these indicators had become very low by 2001. It has been clear from the outset that the specific items employed in the consistent poverty measure would need to be revised at some point in light of changing expectations and perceptions as general living standards rose. In Chapter 7 we expanded the basic deprivation component of the consistent poverty index drawing on items from the ECHP survey. Employing this index, the trend over time since 1994 was broadly in line with our original basic deprivation index and consistent poverty measure, although the impact of economic change was sharper for the more extreme forms of deprivation incorporated in the original set. The number of persons in consistent poverty in 2001 was almost twice the corresponding figure with the original basic set. An analysis of the distribution of poverty risk by socio-demographic group showed that the alternative measure behaved very much like the original consistent poverty measure and contrasted sharply with measures based on income thresholds alone. In terms of levels of self-reported economic strain and psychological distress, the group identified as 'consistently poor' by the alternative measure are sharply differentiated from the rest of the sample, though less so than the original 'consistently poor' group.

In the light of the potential difficulties using the original set of basic items, we would now argue that it would be appropriate to expand the range of monitoring tools to include an alternative consistent poverty measure incorporating income and deprivation along the lines developed here. We have highlighted in previous publications the limitations of a targeting approach that relies entirely on the consistent poverty measure. Instead, we have argued for a broader focus, incorporating reductions in deprivation, falling consistent poverty, and over time a decline in the numbers below relative income thresholds (see, for example, Layte *et al.*, 2000, Nolan, 2000). Thus we have suggested thinking in terms of a set of tiered and inter-related poverty reduction targets along a continuum running from maintenance of real incomes to relative income lines, with targets incorporating deprivation indicators as an intermediate stage.

Arriving at a point where there was little or no deprivation in terms of most of the specific items making up the original basic deprivation index, though remarkable, would not represent the elimination of poverty, because of the way poverty itself can be reconstituted in terms of new and emerging social needs in a context of higher societal living standards and expectations. The implication for current purposes is that poverty monitoring over the period to 2007 would more usefully take a broader focus than the consistent poverty measure as constructed to date, with attention paid to both relative income and consistent poverty with the amended set of indicators such as those suggested in this report

The need to adopt a differentiated approach to both poverty measurement and to locate both in a broader framework that attempts to understand the underlying processes is shown by the diverging stories associated with the different poverty measures employed in this study. Depending on the measure employed we get very different trends in poverty, and we are confronted with the need to decide whether these different results tell different stories or different sides of the same story. In fact, it is possible to combine the results into a single narrative that goes broadly as follows. Since the unprecedented levels of economic growth began in Ireland in 1994 incomes and the standard of living have increased in every year across all main population groups (as shown by the real income measures). This has led to a significant decrease in levels of deprivation (and thus decreases in the consistent poverty measure), but this increase in income has not been uniform across all population groups. Although households reliant on social welfare have seen increases in income, these increases have not been as substantial as for those in employment and self-employment, thus the middle of the income distribution which dictates the level at which the median income poverty line is set has increased at a greater rate than those incomes at the bottom of the distribution. This has meant that the proportion of persons under the relative income poverty lines has increased as have the 'poverty gap' measures that show the depth of poverty.

The diverging stories represent different aspects of the complex realities associated with the unprecedented period of economic and social change which forms the background to the analysis undertaken in this study. In this context, we feel it is appropriate to conclude by repeating the recommendation that establishment of policy objectives and monitoring of progress can be best achieved by adopting a tiered set of inter-related reduction targets. (Layte *et al.*, 2001a.)

# APPENDIX A

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## Survey Structure

The ECHP involves a household questionnaire which is completed by the ‘reference person’ or person responsible for the accommodation, and an individual questionnaire which is completed by each adult (age 16 years or over) in the household. The main items of information collected on the household questionnaire are shown in the top panel of Figure A.1.

The individual questionnaires in 1994 were administered to each member born in 1977 or earlier. This ‘cut-off’ year was updated in each wave of the survey, so that by 2001 all household members born in 1984 or earlier were eligible for individual interview. The main items of information collected on the individual questionnaire are shown in the lower panel of Figure A.1.

### Appendix Figure A.1: Topics Covered in the Household and Individual Questionnaires of the Living in Ireland Surveys

Household Questionnaire Topics
Household size and composition
Housing and physical environment
Housing tenure
Rent and mortgage payments
Standard of living (things the household can afford to have or to do)
Debts and arrears
Sources of household income
Non-cash and secondary benefits
Individual Questionnaire Topics
Current activity status (self-defined)
Detailed information on the current job, for those working 15 or more hours per week in a job or business
More limited information on work for those working less than 15 hours per week
Some information on previous job, for those not currently working 15+ hours per week
Job search activity, for those seeking work
Other daily activities, such as caring responsibilities, social and political participation
Recent involvement in education and training
Activity in each month since the beginning of the previous calendar year
Detailed information on income in the previous calendar year from employment, self-employment, personal and occupational pensions, social welfare, education and training-related allowances and grants, property (interests, dividends, rental income), and other sources.
Health status, health service usage, and health care coverage
General outlook on life

Eurostat has sought harmonisation of content, structure and interpretation of the questionnaires across participating member states. The Living in Ireland Surveys are built around this core harmonised questionnaire, but with additional modules of questions to meet national data needs. For instance, the Irish questionnaire

collects full details on current income, as well as on previous year annualised income, as specified in the core Eurostat set of items.

The questionnaires were administered in a face-to-face interview by the ESRI's team of interviewers. On average, the household questionnaire took 12 minutes to complete, while the individual questionnaire took 30-35 minutes to complete. The average number of individual interviews per household in 1994 was 2.4.

In farm households, a farm questionnaire was also completed to collect information on the acreage farmed, and the profile of the farm in terms of crops grown, other land use, livestock held, and labour input. This information, together with data on the soil type, was used in conjunction with Teagasc's National Farm Survey to estimate the income flow (family farm income) of farm households. This approach was necessary because the nature of farm income – being a combination of market profit or loss, grants and subsidies – makes it difficult for respondents to provide the figure directly.

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

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## Sample Design

The objective of the LIIS 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.<sup>11</sup> Among those effectively excluded from the target population are a number of small groups that face a relatively high risk of poverty – such as the homeless and travellers. To do justice to the particular circumstances of groups such as these would require a different research methodology.

The sample was selected using the ESRI's RANSAM system, which was developed at the institute and has been successfully used for selecting random samples from the electoral register for over two decades. The first step taken by RANSAM is to reconstitute the basic spatial unit of the register (the Polling District or Polling Book) into a listing of District Electoral Divisions (DEDs). There are over 3,400 DEDs in the country and these are the most disaggregated unit for which the Small Area Population Statistics are available. Once the register has been reconstituted in the form of DEDs, one

<sup>11</sup> Collective households, however, were included. These are private households containing five or more unrelated persons with a looser budget-sharing relationship than in the standard private household. The main examples are boarding or lodging houses and army barracks. An individual living in a collective household is treated as a one-person 'sub-household'.

can then link the socio-demographic information contained in the Census of Population with the polling districts used in the electoral list. This allows one to pre-stratify the sampling frame according to any combination of census variables. In selecting the sample for the Living in Ireland Survey the following strata were used:

- Province: Four categories, Dublin; rest of Leinster; Munster; Ulster/Connaught.
- Urban/Rural: Two categories: DEDs with more than 50 per cent of their population in towns with a population of 1,500 or more, versus the rest;
- Unemployment: Two categories: DEDs with an unemployment rate of 16 per cent or more versus the rest.

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### Sample Supplementation in 2000

As shown in Table 2.1, even with a relatively high year-on-year response rate, there was a substantial loss of respondents over time. Of the original sample individuals who were still ‘in scope’ in 1999 (13,964),<sup>12</sup> only 49 per cent (6,908) were in completed Wave 6 households, with another 813 individuals having joined the sample households at some point in the intervening years. By 2000, 5,530 of the 13,861 individuals still in scope (40 per cent) were in completed households. 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.

Attrition of this magnitude is of concern for two reasons:

- To the extent that attrition is not random, it may result in a loss of representativeness in the resulting sample.
- The reduction in the number of completed surveys leads to a loss of precision in the estimates derived from it.

Detailed checks on the pattern of attrition between waves of the survey are discussed in the next section. In brief, these analyses suggested that the main loss was related to difficulties in tracing households that had changed address: primarily households consisting of young single adults. There was no evidence of a disproportionate loss of households from the upper or lower ends of the income distribution of the kind that would tend to bias estimates of average household incomes or poverty measures.

However, the reduced sample size still needed to be addressed. This was achieved by supplementing the sample in Wave 7. The new sample was selected using the same procedure as for the first wave of the survey in 1994, using the ESRI’s RANSAM programme, based on the Electoral Register. The household response rate reached 57 per cent for the 2,661 new sample households contacted

<sup>12</sup> Of the original 14,585 individuals, 339 had died and a further 282 had moved to an institution or outside the EU by 1999. A total of 400 had died by 2000, and 324 had moved to an institution or outside the EU. This left 13,861 individuals still ‘in scope’ by 2000.

by interviewers. This is the same as the rate achieved in Wave 1 and is in line with the typical response rate in other surveys of a demanding nature, such as the Household Budget Survey.

A new sample of just over 1,500 completed households was added to the sample continuing from previous waves of the survey. Of the households followed from the previous year (the 'continuing sample'), 2,443 were issued to interviewers and interviews were completed in 1,952 of these (83 per cent) and with 4,745 individuals (95 per cent of those eligible). The improved economic situation in 2000 made it more difficult to establish contact with, and secure participation of, the households followed from earlier waves, since a higher proportion of the household members were working outside the home. This increased the number of call-backs required to make the initial contact and, since respondents had less free time, made refusals more likely. In addition, it created a challenge in that several of the experienced interviewers moved to alternative employment. A total of 290 households that had completed the Wave 6 interview could not be issued to interviewers because of these difficulties.

The sample supplementation exercise, together with the follow-up of continuing households, resulted in a completed sample in 2000 of 11,450 individuals in 3,467 households. Individual interviews were conducted with 8,056 respondents, representing 93 per cent of those who were eligible (born in 1983 or earlier).

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### Checking for Patterns of Attrition

Given the relatively high sample attrition rate, it was important to carefully check for any biases that may be introduced if attrition is related to characteristics of households, such as size, location, economic status and income. These checks were conducted in the course of devising sample weights for the data in Waves 2 to 8, using information on the households and individuals from the previous wave's interviews. Tables A.1 and A.2 provide detailed results. The tables show the Wave 1 (1994) characteristics of all individuals in completed Wave 1 households, and of the subset of these that were still in completed households in Wave 8. The data are unweighted, and individuals who were out of scope by Wave 8 are not included. The figures in the tables do not, therefore, reflect the population distribution of these characteristics. Note, too, that the figures include only the Wave 8 individuals that were followed from 1994: the new sample added in 2000 is not included and neither are the individuals who joined sample households in the intervening waves.



**Appendix Table A.1: Characteristics of All Individuals in the Wave 1 Sample and of the Subset of These in Completed Wave 8 Households (unweighted, excluding those out of scope by Wave 8)**

	All Individuals in Wave 1		Individuals in Wave 8		Weight
	A	B	C	D	E
	(N cases)	(%)	(N cases)	(% cases)	(B/D)
	14,457	100%	4,844	100%	1.0
<i>Number adults in household</i>					
One Adult	784	5	262	5	1.0
2-Adult	6,717	46	2,565	53	0.9
3-Adult	2,883	20	854	18	1.1
4-Adult	2,453	17	700	14	1.2
5-Adult or over	1,720	12	463	10	1.2
<i>Location</i>					
Dublin	3,405	23	1,212	25	0.9
Other Urban	2,483	17	668	14	1.2
Rural	8,669	60	2,964	61	1.0
<i>Number at work in household</i>					
No-one at work	2,784	19	1,038	21	0.9
One at work	5,285	36	1,804	37	1.0
2+ at Work	6,488	45	2,002	41	1.1
<i>Housing Tenure</i>					
Owner	12,557	86	4,178	86	1.0
Other	2,000	14	666	14	1.0
<i>Whether changed address since W1</i>					
Same address	11,485	79	4,125	85	0.9
Changed address	3,072	21	719	15	1.4
<i>Equalised Household Income Decile (Scale A)</i>					
Bottom Decile	1,597	11	608	13	0.9
2	779	5	309	6	0.8
3	1,074	7	396	8	0.9
4	1,295	9	400	8	1.1
5	1,591	11	508	10	1.0
6	1,991	14	632	13	1.0
7	1,783	12	587	12	1.0
8	1,788	12	601	12	1.0
9	1,440	10	416	9	1.2
Top decile	1,219	8	387	8	1.0
<i>Poverty (50% mean, scale A)</i>					
Not poor	12,225	84	3,944	81	1.0
Poor	2,332	16	900	19	0.9

**Appendix Table A.2: Characteristics of All Individuals in the Wave 1 Sample and of the Subset of These in Completed Wave 8 Households (Unweighted, Excluding those out of Scope by Wave 8)**

	All Individuals in Wave 1		Wave 1 Individuals in Wave 8		Weight (B/D)
	A (N cases)	B (%)	C (N cases)	D (% cases)	
<i>Females by Age</i>					
15 and under	1,920	13	723	15	0.9
Age 16-24	1,223	8	254	5	1.6
Age 25-44	1,808	12	628	13	1.0
Age 45-64	1,520	10	587	12	0.9
Age 65+	771	5	245	5	1.0
<i>Males by Age</i>					
15 and under	1,935	13	763	16	0.8
Age 16-24	1,357	9	284	6	1.6
Age 25-44	1,819	12	603	12	1.0
Age 45-64	1,497	10	541	11	0.9
Age 65+	707	5	216	4	1.1
<i>Females – marital status</i>					
Under 30, single	1,984	14	467	10	1.4
Other single	334	2	87	2	1.3
Married	4,216	29	1,656	34	0.8
Widowed/divorced/separated	708	5	227	5	1.0
<i>Males – marital status</i>					
Under 30, single	2,203	15	516	11	1.4
Other single	582	4	181	4	1.1
Married	4,242	29	1,624	34	0.9
Widowed/divorced/separated	288	2	86	2	1.1
<i>Females Labour Force Status</i>					
At work (ILO)	2,738	19	839	17	1.1
Unemployed (ILO)	413	3	114	2	1.2
In education	613	4	152	3	1.3
Other	3,478	24	1,332	27	0.9
<i>Males – Labour Force Status</i>					
At work (ILO)	4,237	29	1,388	29	1.0
Unemployed (ILO)	628	4	192	4	1.1
In education	653	4	161	3	1.3
Other	1,797	12	666	14	0.9
<i>Social Welfare recipient</i>					
UA or UB	918	9	294	9	1.0
Old age-related payment	908	8	277	8	1.0
Widow(er) payment	299	3	102	3	0.9
Disability-related payment	365	3	137	4	0.8

The impact of attrition on the sample distribution, as opposed to its impact on sample size, can be seen by comparing columns B and

D. We can see, for instance, that individuals in households with 2 adults constituted 46 per cent of the Wave 1 sample. However, individuals who had been in 2-adult households in Wave 1 represented 53 per cent of the completed Wave 8 sample. This mainly reflects the loss of young adults from larger households, as they moved out of home: the sample percentage of individuals who were in 3-adult, 4-adult and larger households in Wave 1 had all declined as a result of attrition.

The main concern is with the extent to which the structure of the sample in terms of the distribution of these characteristics might have been affected by attrition. Column E gives some perspective on the magnitude of the impact of attrition on the sample structure. It shows the average weight that would need to be applied to each cell in the table to compensate for attrition. In other words, it shows the weight that would need to be applied to the completed Wave 8 sample in order to restore the sample distribution that pertaining at Wave 1.<sup>13</sup> A weight of 1 indicates that no adjustment is needed. A weight greater than 1 indicates that the cell would need to be weighted upwards, because individuals of this type were disproportionately lost from the sample. A weight of less than one indicates that the corresponding cells would need to be weighted downwards, because individuals of this type had a greater propensity to be retained in the sample.

The figures are encouraging particularly as Tables A.1 and A.2 show the characteristics where attrition has the most impact. The majority of the adjustments fall in the +/-10 per cent range (from .9 to 1.1). The exceptions are primarily those associated with a propensity to change address: living in a household with a large number of adults (requiring a weight of 1.2), an actual change of address in the intervening years (1.4), being a young adult (1.6) or a student (1.3).

Those living in other urban areas (the county boroughs outside of Dublin) were also disproportionately lost through attrition (requiring an attrition weight of 1.2), as were women who worked outside the home in 1994 and men who were unemployed in 1994. The adjustment for attrition here is relatively small, however, being in the +/- 10 per cent range.

There is no evidence of serious attrition among those living in poor households or in households towards the bottom of the income distribution. If anything, these households, along with individuals receiving social welfare payments associated with old age, disability or widowhood, local authority residents, and older adults were less likely to be lost through attrition than other households.

Other analyses (not shown here) revealed only slight variations in attrition by the socio-economic group of the household reference

<sup>13</sup> These weights are illustrative only. The actual weight applied takes account of the population distribution of these characteristics as well as attrition. Since larger households were over-represented in the Wave 1 sample – because of the design of the sample – the actual weight applied to larger households was lower.

person, overall household size, presence of persons age 65 years or over, and more detailed breakdowns by age group, marital status and economic status.

Overall then, although the attrition rate is relatively high, it has only a minor impact on the sample distribution of individual and household characteristics. Although, as we have noted, there is an association between non-response and changing address (which particularly affects young, single householders) the overall impact on the sample structure is slight. Nevertheless, as described in the next section, attrition was taken into account in re-weighting the sample for analysis.

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## Sample Weights for the 2001 Data

The purpose of sample weighting is to compensate for any biases in the distribution of characteristics in the completed survey sample compared to the population of interest, whether such biases occur because of sampling error, from the nature of the sampling frame used, differential response rates or attrition.

Whatever the source of the discrepancy between the sample and population distributions, we would like to adjust the distributional characteristics of the sample in terms of factors such as age, sex, economic status and so on to match that of the population. In a cross-sectional survey, or in the first wave of a panel survey, the only way to check the distributional characteristics of the sample is to compare sample characteristics to external population figures from sources such as the Census, the Labour Force Survey, official statistics on number of social welfare recipients from the Department of Social Welfare, and so on. In waves following the first wave of a panel survey, we can also compare the characteristics of the individuals and households successfully followed to those of the individuals and households in a previous wave of the survey. In constructing the weights for the Living in Ireland Survey in Wave 2 and subsequently, both of these methods were used.

The household weights were developed in a number of steps, which are now fully described.

- The first step involved adjusting the continuing sample for attrition.
- The second step was to calibrate the sample totals against population totals from external sources.

The first step was to derive weights to control for any bias due to sample attrition at the household level between waves of the survey. The household weights from the previous wave were carried forward for the continuing sample, and then adjusted for any pattern of attrition in that wave. In constructing the Wave 8 weights, for instance, the Wave 7 household weight was carried forward to the Wave 8 sample. The characteristics of all Wave 7 households (including the newly-generated households)<sup>14</sup> were compared to

<sup>14</sup> Newly-generated households are households formed when a sample person from the previous wave moves out and either sets up a new household or joins a non-

those of all completed Wave 8 households.<sup>15</sup> The household characteristics examined were:

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

The following are characteristics of the household head were also used.<sup>16</sup>

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

In general, as we saw above in the discussion of attrition, the distribution of the characteristics examined was very similar for the responding and non-responding Wave 8 households. Although the sample attrition rate is higher than we would like, there is certainly no indication any selectivity in the attrition is having a notable impact on the distribution of the major correlates of household income and poverty status.

The adjustment for sample attrition involved adjusting the Wave 7 household weights so that the distribution of each of the characteristics for the responding Wave 8 households was equal to the distribution of these characteristics for the total sample (responding and non-responding households). The Gross programme written by Johanna Gomulka was used. This programme uses a minimum distance algorithm to adjust an initial weight so that the distribution of characteristics in a sample matches that of a set of

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

<sup>15</sup> Since no information was available on the Wave 8 characteristics of non-completed households, the Wave 7 characteristics were used. In the case of newly-generated households, the Wave 7 characteristics of the household the individual(s) moved from were used.

<sup>16</sup> The ‘household head’ is the person responsible for the accommodation, or the male partner in households where the couple is jointly responsible.

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

The second step in constructing the household weights for the 2001 data involved combining the continuing and new samples and adjusting the weight so as to reflect the population distribution of a number of key characteristics. The initial weight at this stage was taken as the attrition weight from the first step for the continuing sample households; and as the design weight from the second step for the new sample households.

The external population figures were taken from the second quarter of the 2001 *Quarterly National Household Survey* (QNHS), the Department of Social Community and Family Affairs (DSCFA) published statistics on social welfare reciprocity levels, and figures from Teagasc on the total number of farms in each size category. At this stage we compared the current characteristics of the completed Wave 8 sample to those of the population in private households, as shown in external sources. The external controls were as follows:

Household characteristics:

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

Individual characteristics:

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

The initial weight (the attrition weight) was adjusted to these external population totals using the Gross programme. The weights were constrained to the range from .125 of the average weight to 8 times the average weight, in order to avoid placing too much reliance on the representativeness of a small number of observations. Nevertheless, as shown in Tables A.3 to A.5, the resulting match between the weighted sample characteristics and the population characteristics used as controls was highly satisfactory, indicating that extreme weights were not required to achieve this adjustment.

Apart from incorporating weights to control for attrition from previous waves, and the availability of new technology in the form of the Gross programme, the logic and general strategy in developing the weights for Waves 2 to 8 was very similar to that used in Wave 1. Carrying forward the weights from the previous waves meant that little further adjustment was needed in Waves 2-8 for the

distribution of characteristics such as household size or farm size, except insofar as these were associated with attrition or the effects of including newly-generated households in the sample.

**Appendix Table A.3: Population Totals, Unweighted Sample Totals in 2001 and Weighted Sample Totals: Household Characteristics as Per Cent of All Households (unless otherwise stated)**

		Population		Unweighted Sample	Weighted Sample	
		A	B	B-A	D	(D-A)
		Per Cent	Per Cent	Diff.	Per Cent	Diff.
Household Size	One person	21.9	17.5	-4.4	21.9	0.0
	2-person	25.6	24.6	-1.0	25.6	0.0
	3-person	16.7	16.2	-0.6	16.7	-0.1
	4-person	18.0	19.1	1.1	18.1	0.1
	5+ persons	17.8	22.7	4.9	17.8	0.0
Number Over 18	One Adult	26.7	20.0	-6.7	26.6	0.0
	2-Adult	48.2	46.8	-1.4	48.0	-0.2
	3-Adult	14.3	16.9	2.5	14.4	0.1
	4-Adult	7.3	11.3	4.1	7.4	0.2
	5-Adult	2.6	3.6	1.0	2.7	0.0
	6+adult	0.9	1.4	0.5	0.8	-0.1
Location	Dublin	29.7	23.5	-6.2	29.7	0.0
	Other Urban	30.6	27.9	-2.8	30.6	0.0
	Rural	39.6	48.6	9.0	39.7	0.0
Number at work	No-one at work	28.0	27.5	-0.5	28.0	0.0
	One at work	33.0	30.3	-2.7	33.1	0.0
	2+ at Work	39.0	42.1	3.2	39.0	0.0
Number over age 65	One or more	25.9	31.1	5.2	25.9	0.0
	None	74.1	68.9	-5.2	74.1	0.0
Head Age	Under 25	5.3	1.6	-3.8	5.3	-0.1
	Over 25	94.7	98.4	3.8	94.7	0.1
Farm Size (per cent of farms)	1-9 ha.	17.4	10.4	-7.0	17.4	0.0
	10-19 ha.	26.4	26.1	-0.3	26.2	-0.2
	20-29 ha.	20.7	21.3	0.7	20.7	0.0
	30-49 ha.	20.6	24.1	3.5	20.6	0.0
	50-99 ha.	12.1	15.4	3.3	12.1	0.0
	100+ ha	3.0	2.7	-0.3	3.0	0.0

**Appendix Table A.4: Population Totals, Unweighted Sample Totals in 2001 and Weighted Sample Totals: Individual Demographic Characteristics as Per Cent of All Individuals (unless otherwise stated)**

		Population	Unweighted Sample		Weighted Sample	
		A	B	(B-A)	D	(D-A)
		Per Cent	Per Cent	Diff.	Per Cent	Diff.
INDIVIDUALS	15 and under	11.2	10.6	-0.6	11.2	0.0
Females by Age	16-19	3.3	3.7	0.4	3.3	0.0
	20-24	4.3	4.0	-0.3	4.3	0.0
	25-34	7.7	6.1	-1.5	7.6	0.0
	35-44	7.0	6.5	-0.6	7.0	0.0
	45-54	6.1	6.5	0.4	6.1	0.0
	55-59	2.4	3.1	0.7	2.4	0.1
	60-64	2.0	2.3	0.4	2.0	0.0
	65-69	1.7	2.2	0.5	1.7	0.0
Males by Age	70+	4.6	4.8	0.2	4.7	0.0
	15 and under	11.8	11.6	-0.3	11.8	-0.1
	16-19	3.5	4.1	0.6	3.5	0.0
	20-24	4.4	4.5	0.2	4.4	0.1
	25-34	7.8	5.9	-1.9	7.7	-0.1
	35-44	6.8	6.2	-0.6	6.8	-0.1
	45-54	6.1	6.3	0.1	6.2	0.0
	55-59	2.4	2.9	0.5	2.5	0.1
Females over 15, Age and Marital Status	60-64	1.9	2.5	0.5	2.0	0.0
	65-69	1.6	1.8	0.2	1.6	0.0
	70+	3.2	4.3	1.1	3.2	0.0
	Under 30, Married	1.6	1.1	-0.5	1.6	0.0
	Under 30, Single	14.4	13.7	-0.6	14.3	-0.1
	30-44, Married	9.6	8.7	-0.9	9.5	-0.1
	30-44, Single	2.8	2.4	-0.4	2.8	0.0
	45-64, Married	10.2	12.1	1.9	10.2	0.0
	45-64, Single	1.1	0.8	-0.2	1.0	0.0
	Under 65, Widowed	1.1	1.1	0.1	1.1	0.0
Males over 15, Age and Marital Status	65+, Married	2.9	4.1	1.2	2.9	0.0
	65+, Single	1.0	0.6	-0.4	1.0	0.0
	65+, Widowed	4.0	4.1	0.1	4.0	0.0
	All Ages, Divorced/Separated	2.0	1.7	-0.4	2.1	0.0
	Under 30, Married	0.9	0.7	-0.2	1.0	0.0
	Under 30, Single	15.6	15.2	-0.3	15.6	0.0
	30-44, Married	9.0	7.7	-1.3	8.9	-0.1
	30-44, Single	3.8	3.3	-0.5	3.8	0.0
	45-64, Married	10.5	12.2	1.7	10.6	0.1
	45-64, Single	1.9	1.7	-0.2	1.9	0.0
Under 65, Widowed	0.4	0.3	0.0	0.4	0.0	
65+, Married	3.9	5.5	1.6	3.9	0.0	
65+, Single	1.2	1.1	-0.1	1.2	0.0	
65+, Widowed	0.9	0.9	0.0	0.9	0.0	
All Ages, Divorced/Separated	1.2	0.7	-0.5	1.2	0.0	



**Appendix Table A.5: Population Totals, Unweighted Sample Totals in 2001 and Weighted Sample Totals: Individual Socio-Economic Characteristics as Per Cent of All Individuals (unless otherwise stated)**

		Population	Unweighted Sample		Weighted Sample	
		A	B	B-A	D	(D-A)
		Per Cent	Per Cent	Diff.	Per Cent	Diff.
Social Welfare as per cent of persons age 15+	Unemployment Assist	2.5	2.3	-0.2	2.5	0.0
	Unemployment Benefit	2.0	1.5	-0.4	1.9	0.0
	OAP- Contributory/Retirement Pension	5.8	6.0	0.2	5.8	0.0
	OAP-Non. Contrib.	3.0	4.9	2.0	3.0	0.0
	Pre-Retirement Allow	0.4	0.5	0.1	0.4	0.0
	Widow-Contributory	3.4	1.8	-1.6	3.4	0.0
	Widow Non-contributory	0.6	0.5	0.0	0.6	0.0
	Lone Parent	2.6	1.6	-0.9	2.5	0.0
	Carer's Allow	0.6	0.5	-0.2	0.6	0.0
	Disability Benefit	1.7	1.9	0.3	1.7	0.0
	Invalidity Pension	1.7	1.7	0.1	1.7	0.0
	DPMA	1.9	0.8	-1.2	1.8	-0.1
	Females by ILO/PES as per cent of persons age 15+	At work, ILO	23.3	22.5	-0.8	23.3
Unemployed, ILO		0.8	1.2	0.3	0.9	0.0
Unemployed, not ILO		0.5	0.3	-0.2	0.5	-0.1
Student		5.7	5.5	-0.2	5.6	-0.1
Home Duties		17.4	17.1	-0.3	17.4	0.0
Retired		2.0	3.0	1.0	2.0	0.0
Other/III disabled		1.0	0.9	-0.1	1.0	0.0
Males by PES as per cent of persons age 15+	At work, ILO	33.6	32.3	-1.3	33.5	-0.1
	Unemployed, ILO	1.3	1.6	0.3	1.4	0.0
	Unemployed, not ILO	1.0	0.9	-0.1	1.0	0.0
	Student	5.0	5.2	0.2	5.0	0.0
	Home Duties	0.2	0.2	0.0	0.2	0.0
	Retired	6.3	7.8	1.4	6.4	0.1
	Other /III disabled	1.9	1.4	-0.5	1.9	0.0
Females age 20-64 by Education (as % of persons age 20-64)	F2064Ed0	9.4	10.5	1.0	9.5	0.1
	F2064Ed1	9.3	10.5	1.1	9.4	0.1
	F2064Ed2	18.5	18.2	-0.3	18.5	0.0
	F2064Ed3	12.7	11.1	-1.6	12.5	-0.2
Males age 20-64 by Education (as % of persons age 20-64)	M2064Ed0	10.6	12.0	1.4	10.7	0.1
	M2064Ed1	14.8	12.4	-2.4	14.7	-0.1
	M2064Ed2	13.7	15.1	1.5	13.7	0.0
	M2064Ed3	11.0	10.3	-0.7	11.0	0.0

# APPENDIX B

**Appendix Table B1: Average Weekly Household Equivalent Income, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale	Income Per Adult Equivalent Averaged Over Households				
	1994	1997	1998 £ per week	2000	2001
B (1/0.6/0.4)	131.33	167.54	186.5	221.6	251.2
C (1/0.7/0.5)	121.96	155.84	173.1	205.9	233.4

**Appendix Table B2: Percentage of Households Below Mean Relative Income Poverty Lines, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale/ Poverty line	Percentage of Households Below Line				
	1994	1997	1998	2000	2001
Scale B (1/0.6/0.4):					
40% relative income line	5.2	7.1	10.2	10.8	10.2
50% relative income line	19.4	22.0	23.5	23.8	23.1
60% relative income line	34.1	34.0	32.1	32.1	32.7
Scale C (1/0.7/0.5):					
40% relative income line	7.0	7.0	7.6	10.2	10.0
50% relative income line	16.5	19.8	22.4	23.4	22.6
60% relative income line	32.9	34.2	32.7	33.0	32.8

**Appendix Table B3: Percentage of Persons Below Mean Relative Income Poverty Lines, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale/ Poverty line*	Percentage of Persons Below Line				
	1994	1997	1998	2000	2001
Scale B (1/0.6/0.4):					
40% relative income line	5.4	7.9	8.8	8.9	8.6
50% relative income line	18.9	18.6	18.4	18.5	18.3
60% relative income line	30.1	30.7	27.8	27.2	27.7
Scale C (1/0.7/0.5):					
40% relative income line	6.8	8.1	8.0	8.5	8.4
50% relative income line	18.8	18.2	17.8	18.0	18.2
60% relative income line	29.4	30.7	28.4	27.7	28.0

\*Based on Income Averaged Across Individuals.

**Appendix Table B4: Percentage of Persons Below Median Relative Income Poverty Lines (Based on Income Averaged Across Individuals), Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001**

Equivalence scale/ Poverty line	Percentage of Persons Below Line				
	1994	1997	1998	2000	2001
Scale B (1/0.6/0.4):					
50% median income line	6.3	9.6	10.3	12.4	14.6
60% median income line	17.1	18.9	19.3	21.1	21.9
70% median income line	26.9	28.8	27.4	28.4	30.0
Scale C (1/0.7/0.5):					
50% median income line	7.0	8.9	9.8	11.2	12.9
60% median income line	17.0	17.7	18.8	20.9	21.5
70% median income line	25.4	27.8	27.0	28.4	30.1

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