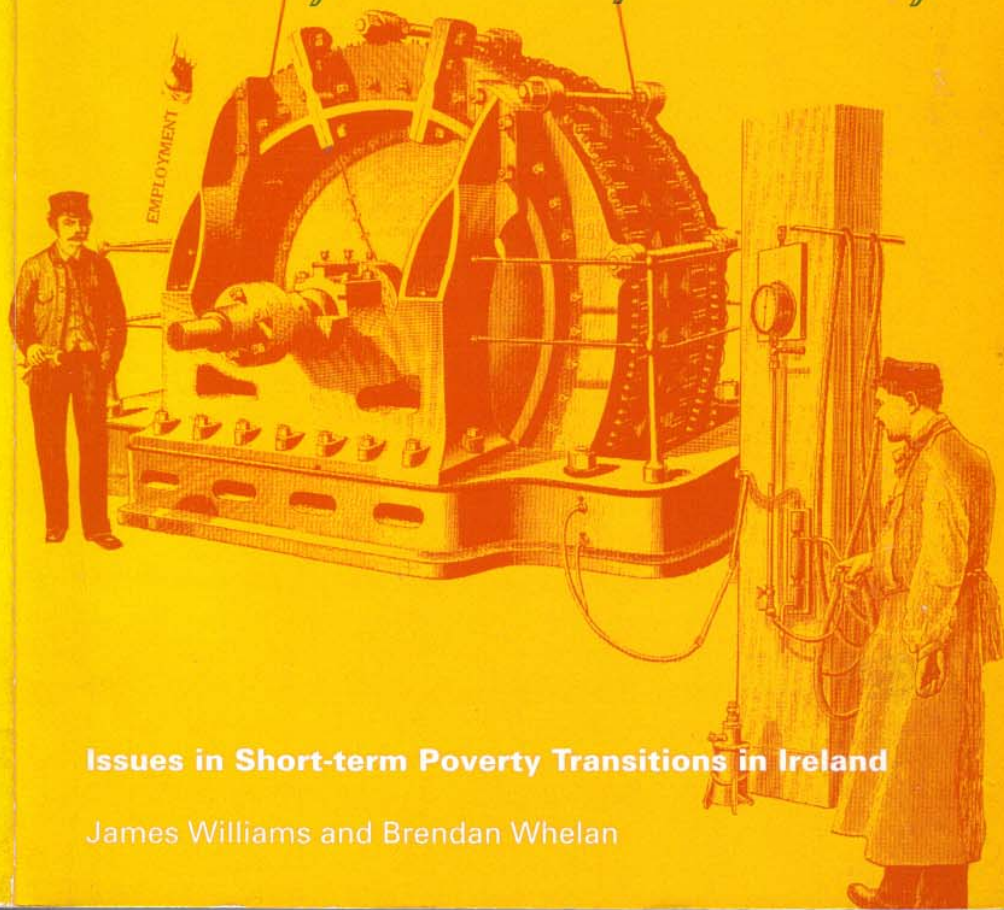




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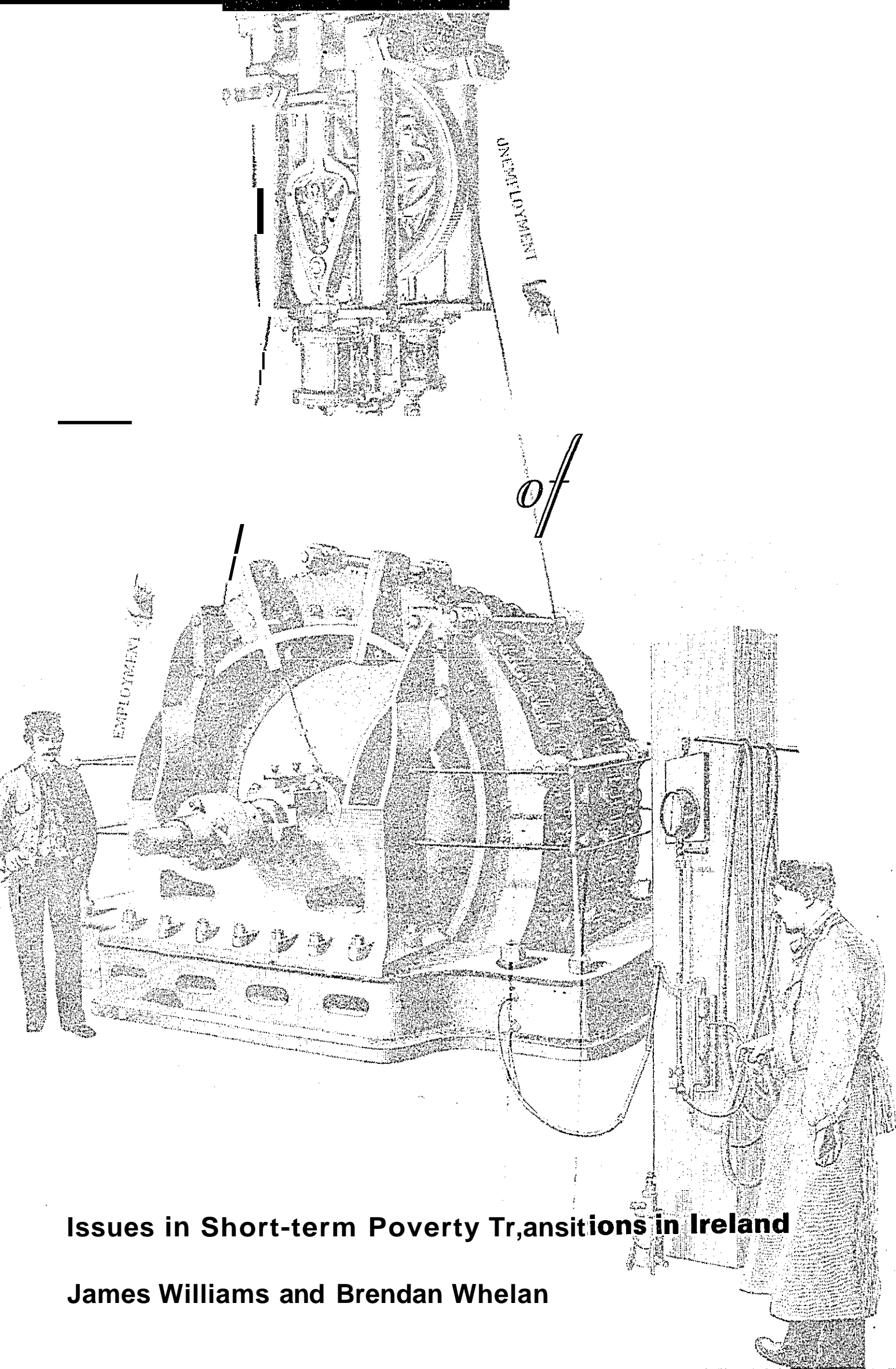
EMPLOYMENT

The Dynamics of Poverty



Issues in Short-term Poverty Transitions in Ireland

James Williams and Brendan Whelan



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ISBN 1 871643 32 5
Research Report Series No. 16

The views expressed in this report
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Design and Production
Language *visual communication*

Copy Editing
Therese Caherty

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ACKNOWLEDGMENTS

James Williams is a Research Officer and Brendan Whelan is a Research Professor at the Economic and Social Research Institute. The ESRI is not responsible for the content or views expressed in the report.

We are indebted to several of our colleagues in the Institute for advice and comments at various stages in the preparation of the report. Tim Callan, Brian Nolan and Chris Whelan were particularly helpful in talking through many of the issues involved, especially (though by no means exclusively) as regards the combined relative income/material deprivation thresholds discussed in Chapter 5. In addition, detailed comments were made on an earlier draft of the report by Tim Callan, Brian Nolan and Dave Rottman (all off the ESRI) and Trutz Haase and Helen Johnston (both of the Combat Poverty Agency).

The gestation period for the report was somewhat longer than initially envisaged - primarily due to technical issues related to the construction of the first longitudinal household database in Ireland. We gratefully acknowledge the forbearance of Hugh Frazer (Director of the Combat Poverty Agency) and his staff throughout the project as it became apparent that pre-arranged deadlines would, in some instances, not be met.

The speed and efficiency of staff in the ESRI's Survey Unit, General Office and Print Room at all stages of the project were much appreciated.

As usual, the authors are solely responsible for any errors, omissions or obscurities in the final text.

FOREWORD

The "poor" are frequently misrepresented as a group of people who are born into poverty, live in poverty and will remain in poverty. The Combat Poverty Agency has consistently held the view that poverty is a complex phenomenon with households moving into and out of poverty in response to a variety of events. This means that for some, poverty may be a largely transitory or cyclical occurrence, while for others it may be a permanent, disadvantaged position from which it is difficult to escape.

The Combat Poverty Agency welcomes the publication of this report which, for the first time, provides an important new perspective on the dynamics of poverty in Ireland over the short-term, making the important distinction between cyclical (short-term, transitory) and structural (long-term, permanent) poverty.

The ESRI Household Surveys of 1987 and 1989 provided a dataset which enabled researchers to look at changes in the income mobility and poverty status of a sample of the population over a two year period. In commissioning and publishing this research report the Agency hopes to further the understanding of poverty and its dynamics in Ireland.

The findings of the study show, on a number of indicators, that in the short-term, poverty is not a constant state, and that there is considerable movement in and out of poverty, however defined. The study usefully draws on the US literature which documents panel surveys which have been running for 20 years. The US data have identified changes in household composition as being the most significant event causing people to move into or out of poverty. In Ireland, the more limited data indicate that employment status of the head of household is the most important factor.

This major study has a number of significant policy implications, drawing attention to the need to distinguish between short-term and long-term poverty transitions. The policy prescriptions for alleviating cyclical poverty may need to be considerably different from those required to combat long-term structural poverty. For those experiencing poverty for a relatively short period adequate social welfare benefits may be sufficient; for those experiencing poverty over a longer period additional measures will be required.

The Combat Poverty Agency hopes that through continued cross-sectional surveys, or through the instigation of a fully resourced panel survey in Ireland, poverty transitions can be monitored over a number of years. This would provide an invaluable information source for policy makers. Such an information source would enable us all to better understand some of the underlying causes of poverty and allow us to take appropriate measures to counteract these.

Gerry Flynn
Chairman

EXECUTIVE SUMMARY

Several studies on poverty in Ireland have suggested a relatively high degree of consistency in poverty rates when measured at various points in time throughout the 1970s and 1980s. This stability is often taken to mean that there is little, if any, turnover among households which are in poverty. The constancy of figures on poverty levels over time gives the impression that those who are in poverty constitute an unchanging stock of individuals or households who, for one reason or another, seem destined for a life of impoverishment. It is often assumed that once one falls below the poverty line the chances of subsequently rising above it are, to say the least, limited.

In recent years research evidence has begun to emerge from the United States which suggests that there is, in fact, quite a substantial degree of change in the population below the poverty line from one point in time to another. This evidence is based on results from so-called *panel surveys*. These involve interviewing the same group of households or families in successive years over a prolonged period. The Panel Study of Income Dynamics, PSID, (based in Michigan in the US) has been reinterviewing the same group of families each year since 1968. This has enabled researchers to build up a comprehensive picture of the financial well-being and circumstances of US households and changes therein over a twenty-five year period. From this wealth of detail, estimates can be derived of the extent to which households and individuals experience changes in their poverty status over time in response to a variety of events. Using this information a distinction can be made between cyclical and structural poverty as well as quantifying their respective importance. Whilst the former is, by definition, of a transitory nature, the latter represents a long-term, often permanent, state.

The distinction between transitory and permanent poverty has not been as clearly addressed in the European literature. The reason for this is fairly straightforward. Until very recently there were very few panel based surveys in operation in Europe. Even today, those which

are being undertaken have not been in operation for an extended period and have, as yet, collected only limited runs of data. Because of this, most of the published research on trends in poverty dynamics has focused on the experience in the United States. The study of poverty dynamics in Europe is still at a very early stage of development.

The purpose of the current study is to present some findings from the first household panel survey ever undertaken in Ireland. Using two waves of data collected in 1987 and 1989, we are able to address, for the first time, various aspects of poverty dynamics in Ireland. This should assist our understanding of the mechanisms underlying poverty, the consequences of poverty and the policy responses necessary to redress the problem. For reasons which are discussed in full in Chapter 2 we concentrate throughout the report only on non-farm households and changes in their poverty status over the study period (1987-1989).

Measuring the rate and incidence of poverty presents major conceptual and theoretical problems, as well as technical difficulties. These are compounded when one attempts to measure micro-level (household level) *changes* in poverty status over time. In the light of such difficulties it is important that the estimates presented throughout the report are properly interpreted within the context of their derivation.

The Irish data suggest that the vast majority of non-farm households experienced a relatively small degree of income change over the period 1987-1989, which was not surprising given the relatively short interval between the two rounds of interviewing. Real change in household equivalent income was in the range of +/- 15 per cent for almost one half of households. Similarly, when considering relative or positional income mobility we found that just over one half of non-farm households did not change their income quintile position over the study period, with approximately equal proportions of the

remainder experiencing a deterioration and an improvement. In general, the most important factors associated with income change are a change in the employment status of the head of household and a change in the number of economically active household members. This is in comparison with the findings from the United States which highlight the overriding importance of changes in family composition in determining changes in income mobility.

One of the most important aspects of the study of poverty dynamics is the estimation of escape rates ie the proportion of those who were in poverty at one point in time who have managed to escape from poverty at a subsequent point. The extent of movement depends on the poverty line chosen. For example, if one considers the households in our sample which were under the 40% poverty line in 1987 (ie whose equivalent incomes were below 40 per cent of the mean equivalent income of all households) over one half (59 per cent) had incomes *above* the 40% poverty line in 1989. Comparable figures in respect of escapes rates across the 50% and 60% poverty lines over the period in question were 38 per cent and 30 per cent respectively.

One of the disadvantages of defining a poverty escape as the movement from below a specified line in phase 1 of the study to a point above the same line by phase 2, is that a marginal increase in real household income (sufficient to tip the household over the line by phase 2) will result in artificially inflated estimates of poverty escape rates. To prevent these marginal shifts in real income from artificially inflating the extent of poverty escapes we also present (in Chapter 4) results based on a second definition of poverty escape. This second definition is substantially more restrictive than the first. It is based on a household moving from a position below a specified line in phase 1 to a point located at least *10 percentage points above* the same line in phase 2. Using this second definition of poverty escape means that we would classify a household as having escaped

from poverty only if it went from, for example, a point below the 40% relative income poverty line in phase 1 to a point above the 50% line by phase 2. It should be noted that although this second criterion eliminates the possibility of marginal shifts in equivalent income, tipping households above the poverty line, it is an extremely severe criterion and means that only households which experience a very substantial real increase in income over the study period could be potentially classified as having escaped from poverty. Using this more rigorous criterion we found that approximately one-third of households which were below the 40% relative income poverty line in 1987 had moved to a position above the 50% line by 1989. Comparable figures for 50%-60% and 60%-70% poverty escape thresholds are 24 per cent and 18 per cent respectively.

An extension of examining poverty escapes in isolation is to look at the changing poverty status of all non-farm households. When looking at all non-farm households surveyed we saw that (using a 60% relative income line as our measure) 65 per cent had experienced no poverty at either round of interviewing; just under 10 per cent had fallen into poverty over the study period; 7 per cent had escaped from poverty and the remaining 17 per cent were experiencing poverty at both points of interview.

In addition to examining escape rates across relative income lines we also examined aspects of poverty dynamics with reference to trends in summary indices of material deprivation. Three such indicators are considered *viz* Primary deprivation; Secondary deprivation; and Housing & Household Capital deprivation. The primary deprivation indicator refers to an enforced lack of basic items such as food,

The figures presented here on poverty escape rates are based on equivalence weights of 1.0 for Household Head; 0.7 for Other Adults; and 0.5 for Child(ren). As discussed in full in the report, the poverty level and related escape rates will vary depending on the set of equivalence weights used.

clothes, heating etc. Secondary deprivation refers to items which are associated with the ascendant middle class or comfortable working class and is based on an enforced lack of items such as: a weeks annual holiday; an ability to save regularly; a daily newspaper; a hobby; a car etc. Housing & Household Capital deprivation refers to an enforced lack of items associated with housing quality and amenities. It includes items such as a bath or shower; indoor toilet; washing machine; and central heating.

In Chapter 5 household-level changes in each of these indicators over the study period are considered. We find, for example, that 56 per cent of non-farm households in our sample experienced no change in their primary deprivation score; 12 per cent experienced an improvement of 1 point in their score; 8 per cent experienced an improvement of 2 or more points; 15 per cent experienced a deterioration of 1 point in their score; and the remaining 8 per cent experienced a deterioration of 2 or more points. Perhaps not surprisingly, given the nature of the indicator in question, greatest stability was displayed in the Housing & Household Capital indicator over the period in question. Just over three-quarters of non-farm households did not change their score on this index between 1987 and 1989.

By combining these resource-based indices of deprivation with relative income poverty lines we are able to derive an integrated and comprehensive indicator of poverty in its broadest sense. As Ringen notes:

Low income, for example, may represent only a temporary and atypical situation which does not force the person to change his lifestyle - he may for a while live off savings - and there may be ways of avoiding life in deprivation such as to live on someone else's income On the other hand, to rely on way of life indicators alone, that is, to go all out for direct measurement, is also insufficient since people may live as if they were poor

without being poor We need to establish not only that people live as if they were poor but that they do so because they do not have the means to avoid it (0987:162).

A poverty threshold based on a combination of relative income and the primary deprivation indicator goes a long way towards meeting Ringen's requirements for an integrated measure of poverty status and changes therein over time. When we define the poverty threshold as an equivalent income below the 50% relative income line *and* a score of 1 or more on the primary deprivation index, we find (in Chapter 5) that just over 10 per cent of non-farm households were in poverty in 1987. A total of 36 per cent of these households had escaped from poverty (as measured by the same combined line) by the second phase of the project in 1989. As noted above, the extent of change in poverty status depends on the poverty threshold chosen. For example, using a 60% relative income line combined with a score of 1 or more on the primary deprivation index gives a poverty level of 15 per cent and an escape rate, between 1987 and 1989, of just under 31 per cent. When the 40% relative income line is combined with a score of 1 or more on the primary deprivation index the escape rate over the study period is 51 per cent, from a 4.4 per cent incidence level in 1987.

There are two particularly significant implications which can be drawn from these figures on poverty escapes. First, the analysis clearly suggests that there is a dynamic element to poverty and deprivation. The actual levels of the figures themselves are not the all-important consideration. The most significant point to note here is that those who are escaping from poverty are being replaced, in approximately the same proportion, as those who fall below the poverty line in the short term. Secondly, the critical factor in regard to income mobility and poverty transitions in Ireland seems to be labour market conditions and related changes in employment status of the household head. This contrasts somewhat with much of the evidence

discussed from the PSID which indicates that change in family composition is the most important factor in determining economic mobility. Although the Irish sample was small, we did not identify any large scale incidence of household break up in Ireland over the study period. Most of the compositional change we did identify involved the birth of a child or entry of another member to the household. Marital break up did not feature significantly in our data.

The most important point to be drawn from the information presented in the report is that it clearly indicates that households in Ireland experience a degree of change in their poverty status over time and that the notion of a fixed and relatively unchanging stock of households below the poverty line must be revised.

The distinction between structural and cyclical poverty is clearly of importance from a policy point of view. Unless we make this distinction we will not be able to put forward policy prescriptions which will adequately address the level and consequences of all types of poverty in Ireland today. The policy prescriptions appropriate for alleviating short-run poverty may be quite different to those necessary for addressing long-run or structural poverty. The effects of transitory poverty may well be alleviated by social welfare transfers in the short term. For those experiencing long-term poverty, however, measures other than, or at least in addition to, social welfare payments may be necessary.

CHAPTER 1

Background and Introduction

1. Introduction

When someone speaks of the "poor" we usually have little difficulty in imagining whom they are referring to. A common and pervasive misconception about poverty and households in poverty, however, is that we can meaningfully talk in terms of a simple, static dichotomy of poor and non-poor households. The implication often seems to be that those in poverty constitute a homogeneous and unchanging stock of households or individuals who are currently in poverty, who have always been in poverty and whose lot it is to remain in poverty in the future. The reality of the situation is much more complex. For some households poverty may certainly be a long-term, almost permanent state. For others, it may be a more transitory phenomenon. Households may pass into and out of poverty in response to a variety of events. These could include, for example, a change in the employment status of the household head, a change in the number of economically active household members, or a change in family composition. We should, therefore, distinguish between, on the one hand, cyclical or transitory poverty and, on the other, permanent or structural poverty.

This report uses a recently constructed database to examine the extent and correlates of short-term income and poverty dynamics in Ireland. In so doing we hope to bring a new perspective to bear on the poverty debate. The data were collected as part of a two-phase research programme initiated in 1987 under the EC's Second Poverty Programme. It involved collecting detailed data on the financial and economic circumstances of households in 1987. A subset of these same households was re-interviewed in 1989 with a view to assessing the changes which had taken place in their economic circumstances over the period in question. By linking the data collected at both rounds of the survey one can look in detail at short-term changes in household income and poverty status.

The reader may well ask why we should be concerned with poverty dynamics and why we should try to distinguish between long- and

short-term poverty? The answer is straightforward. Unless we make this distinction we will be unable to improve our understanding of the causes, nature and consequences of both types of poverty. Such an understanding is necessary if we are to put forward policy prescriptions which will adequately address the level and implications of all types of poverty in Ireland today. It seems reasonable to assume, *a Priori*, that the prescription for alleviating short-run poverty is quite different to that for long-run poverty. For example, entry into poverty may have quite different implications for a relatively young, highly skilled person than for a middle-aged, unskilled manual worker whose employment potential may seem limited. For the former the effects of poverty may be substantially alleviated by short-term receipt of social welfare payments. For the latter, measures other than (or at least in addition to) social welfare payments may be necessary.

A further question which the reader may ask is how the study of poverty *dynamics* really differs from much of the previous research in this field? A number of reports have referred to changes in the risk and extent of poverty over time. Such analysis, however, has been based on a comparison of the results from separate, independent sample surveys of the population which collected details on the financial and economic circumstances of households at a single point in time. Examples of point-in-time studies into Irish poverty include O'Connell (1980), Joyce and McCashin (1982), Rottman *et al* (1982), Roche (1984) and Callan *et al* (1989). These cross-sectional studies provide extremely useful insights into the level, nature and characteristics of poverty. They also allow comparison over time of the overall extent of poverty and changes in the structure of the "poor" segments of the population. Using point-in-time studies as the basis for an analysis of change in poverty levels provides insights only into net change. It allows one to say whether or not the overall level of poverty has changed and whether or not the risk of poverty among particular subgroups in society (eg the elderly, unemployed, etc.) has increased or decreased.

It does not, however, allow one to comment on changes in the micro-level composition of those in poverty or on the factors which can be associated with changes in poverty status.

For example, Roche (1984) gives a comparison of changes in poverty risk over the period 1973-1980 among households, classified by livelihood status of household head. He notes that the risk of poverty was approximately halved over the period in question for the household population as a whole. The level of reduction in risk was not, however, uniform across all household types. In the case of farm households the risk of poverty rose slightly over the study period. Apart from the farming sector, the lowest reduction in risks was among households headed by someone who was unemployed (although one should note that the highest risk of poverty in both years was among such households). He found that the greatest reduction in poverty risk was among households headed by someone outside the labour force (see Roche 1984:79). Similarly, Callan *et al* (1989) considered trends in poverty incidence and risk over the period 1973-1987 using three Household Budget Surveys carried out over these years. These authors (like Roche, 1984) found that there were some identifiable changes in the structure of those in poverty throughout that period. They identified, for example, an improvement in the position of elderly households. They also noted that the risk of poverty among households headed by persons who were retired, on home duties or in "other" labour force categories fell over the period 1973-1987. Poverty risk among the unemployed also fell, though to a much smaller extent than the other three groups mentioned. It is clear, therefore, that this sort of inter-temporal comparative analysis allows one

1. Having said this, however, it is important to note that the incidence of poverty, among the unemployed increased over the 1970s and 1980s due to the substantial rise in the number of unemployed throughout that period. The authors note that households headed by someone who is unemployed formed one in ten of all households which were below the 50 per cent relative income poverty line in 1973. By 1987 this had risen to one in three (Callan *et al* 1989:109). See section 4.3.1 below for a full discussion on the meaning of relative income poverty lines.

to identify net changes in the static structure of poverty risk and incidence over time. It does not, nor does it purport to, tell us anything of the changing circumstances of individual households. In this report the primary focus will be on the individual household and the extent of change in its economic and poverty status over the short term.

1.1 The Static View of Poverty

Although some research into poverty dynamics has been published in the United States, work in this area is still in its infancy in Europe. Until relatively recently very little of the European literature explicitly addressed the issue of short-term as opposed to long-term poverty. An implicit view running through much of the European literature is that poverty is a long-term, structural phenomenon. There are two main reasons for this. First, there was the rise of culturally-based theories of poverty throughout the 1960s. Secondly, data available to researchers in the field were usually based on single point-in-time surveys of the population. As noted above, even an inter-temporal comparison of change based on such studies provides insights into net changes in the structure of those in poverty. It yields no insights into the poverty dynamics of the individual household. In the absence of available data there was perhaps an inevitable tendency to focus on the structural rather than cyclical aspects of the subject.

1.1.1 Structural Poverty and Traditional Theories

The 1960s saw the rise of culturally-based theories of poverty which held that poor households formed an almost inescapable subculture which was unique and self-perpetuating. The concept of a sub-culture of social dislocation was put forward by, among others, Harrington (1962), Gans (1962), Lewis (1965, 1968), Clark (1967). For example, when discussing the "Other America" of poverty and depression Harrington notes that:

... the real explanation of why the poor are where they are is that they made the mistake of being born: to the wrong parents, in the wrong section of the country, in the wrong industry, or in the wrong racial or ethnic group. Once that mistake has

been made ... most of them would never even have had a chance to get out of the other America (1962:15).

and further that:

... poverty is a culture in the sense that the mechanism of impoverishment is fundamentally the same in every part of the system ... It takes different forms for the unskilled workers, for the aged, for the Negroes, for the agricultural workers, but in each case the principle is the same. There are people in the affluent society who are poor because they are poor, and who stay poor because they are poor (1962:160).

In similar vein, Lewis notes that:

Once it [poverty] comes into existence it tends to perpetuate itself from generation to generation because of its effects on the children (1968:50).

The culturally-based thesis put forward bad values and attitudes among the poor as the sole cause of their poverty. It ultimately led to a reaction among more liberally minded researchers. From this reaction emerged a "situational" interpretation of the causes and nature of poverty. The situational school postulated that poverty was the result of racism and a lack of opportunity rather than any inherent values held by those in poverty.

Unfortunately the two schools seemed to run in virtual parallel throughout the 1960s until Gans observed in 1968 that behaviour was largely a combination of situational responses and cultural patterns (see for example, Gans, 1968:211). In recent years this greater degree of balance has been brought to bear on much of the debate into poverty and its causes.² The view that poverty is a remarkably stable and persistent way of life" passed down from generation to generation

² For a full discussion of this change in perspective see Ellwood (1988) and Wilson (1987)

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along family lines (see Lewis, 1965: p.xxiv) is seldom put forward today. None the less, by failing to examine explicitly the flows into and out of poverty, we implicitly assume that we are dealing with a stock of persons who are in poverty today, were in poverty in the past and will remain in poverty in the future.

1.1.2 Structural Poverty and Research Databases

The second reason for the underlying assumption that poverty is entirely a structural phenomenon may be related to the data available to researchers in the field. One finds that almost all research has, to date, been based on cross-sectional studies. This involves administering a questionnaire survey to a sample of the population to collect detailed information on their financial and economic well-being at a single point in time. From this, one can determine poverty lines and the extent and intensity of poverty. Any inter-temporal analysis which has been undertaken usually involves comparing poverty levels between one cross-sectional survey and another. This type of comparative research often shows that in successive rounds of cross-sectional surveys the percentage of the population "in poverty" is roughly constant. This apparent constancy hides any flows into and out of poverty which may exist. It can provide little information on the incidence of long- and short-term poverty, unless retrospective questions are asked about income in previous time periods. This latter option, however, brings with it problems of recall and accuracy. The only way in which one can investigate either the dynamic flows of poverty or the fortunes of individual households over time is to carry out a longitudinal panel survey in which one interviews the same set of households over a number of successive years.

The dataset constructed from the first two rounds of the ESRI's Survey of Lifestyles and Usage of State Services provides the first longitudinal dataset in Ireland which can be used for poverty research. The reader should note that it is not only in Ireland that one finds a paucity of

reliable longitudinal datasets. The execution of panel-based surveys is expensive and poses major conceptual and operational difficulties. It is not surprising, therefore, that the number of such surveys throughout the world is limited, though growing. Panel surveys have been conducted in the last five years, to greater or lesser degrees, in eight European countries.³ Most of these are extremely recent in origin. For example, Britain, Belgium and Greece have each collected only one round of data. Germany has collected two rounds of data; Ireland, two rounds; the Lorraine region of France, five rounds; Luxembourg, five rounds and The Netherlands, three rounds.⁴

There are a number of panel surveys in operation in the United States. The most important of these in the context of poverty research are the Panel Study of Income Dynamics (PSID) and the Survey of Income and Programme Participation (SIPP). The PSID is carried out by the Survey Research Centre at the University of Michigan and has involved interviewing a panel of approximately 5,000 families each year since 1968. This survey is possibly the most important source of published research into poverty dynamics in the world. The SIPP is carried out by the Census Bureau in Washington. The first wave of interviewing in this survey began in October 1983. Approximately 20,000 households responded in the first round of this survey. These, along with eligible new entrants to the panel, are interviewed on an ongoing basis, with respondents being visited every four months. Each household has a panel life of approximately two and a half years and is interviewed a total of eight or nine times over that period before being removed from the panel and replaced by a new household.

³ These are Belgium, Britain, Germany, Greece, Ireland, Lorraine Region of France, Luxembourg and the Netherlands.

⁴ Eurostat is currently undertaking pilot research in each of the Member States into the feasibility of setting up a pan-European household panel survey based on a completely harmonised questionnaire and research design.

This relative scarcity of high-quality longitudinal datasets has constrained substantive micro-level analysis of the factors underlying economic mobility or poverty dynamics. It has forced researchers, perhaps without their realisation, into an implicit acceptance of the long-term structural nature of poverty with little regard being given to the dynamics of the problem. This seems to be particularly true of the situation outside the United States. Due solely to reasons of data availability, the growing body of literature on poverty dynamics is focused on the United States, particularly on PSID data. See, for example, ISR (1972), Morgan *et al* (1974), Hill *et al* (1981), Duncan (1984), Bane and Ellwood (1986) and Ruggles (1991). More recently, several studies on the dynamic aspects of poverty have been based on the SIPP data published by the US Census Bureau. See, for example, Ruggles (1988) and US Bureau of the Census (1989). With the emergence over the next few years of longitudinal information from European datasets we shall doubtless see an increased awareness of the transitory or cyclical aspects of poverty. Until then, however, we are largely forced to focus our attention on trends in poverty dynamics in the United States.

1.2 Research Issues in Poverty Dynamics

Much of the panel-based literature on income and poverty dynamics concentrates on aspects of the topic which are overlapping and which do not form discrete areas of study. To some extent researchers, particularly European ones, are still 'trying to find ways of conceptualising and understanding research into poverty dynamics which is both technically feasible and interpretationally meaningful. Clearly defined areas of research have yet to be established in the literature. This notwithstanding, we can tentatively identify four main interrelated areas of interest as follows:

1. *income mobility and related events*: income mobility is obviously a prerequisite for poverty dynamics. If equivalised household

income⁵ did not experience real fluctuations there would be little scope, for studying poverty dynamics. In a world in which there was little substantial change in real equivalent incomes, poverty would be entirely structural with no cyclical component. Under such circumstances a single point-in-time cross section would be sufficient to tell the full story of the extent, intensity, characteristics and consequences of poverty;

- ii. *poverty transitions and durations of spells*: this is the meat of the subject. It involves measuring the extent to which individuals fall into and graduate out of poverty between one period and another and the overall length of poverty spells;
- iii. *events related to poverty transitions*: this directly addresses the mechanisms underlying transitions;
- iv. *the characteristics of the long- and short-term poor*: this aspect compares and contrasts the characteristics of those in long- and short-term poverty.

It is clear that the distinction between each of these areas is more apparent than real and is often drawn for the convenience of researchers and their data. Each of the four areas merges one into the other. For example, income mobility charts fluctuations in economic fortunes over a given period. Poverty transitions examine the extent to which income mobility and changes in the income/needs ratio will change poverty status over time. Poverty transitions, therefore, should be seen as a change in equivalent income which is sufficiently large as to ensure that some members of the population are pushed above or below the poverty line⁶ relative to their initial position. Income mobility is, therefore, a

⁵ This is a measure of income which is adjusted to take account of size, structure and composition of an individual's household. Equivalence scales are discussed briefly in section 3.2.1.

Background and Introduction

prerequisite of poverty transitions. Similarly, an examination of the events related to poverty transitions is closely linked to an analysis of the characteristics of those in short- as compared to long-term poverty.

It should be noted that in addressing these aspects of poverty in this report the unit of analysis used throughout is the household. We consider, for example, changes in household income, transitions in household poverty status etc. Maintaining the focus on the household in this way clearly masks (or at least has the potential for masking) the extent to which certain individuals within the household are either disproportionately advantaged or disadvantaged relative to other household members. It may be that some individuals in poor households are not themselves "in poverty" and, conversely, some individuals who live in households which are above the poverty line may, in fact, be in a state of impoverishment. Ideally one should look at the financial and economic circumstances of the *individual* and changes therein over time rather than at the *household* in aggregate. Data availability largely prevents one from undertaking the sort of detailed analysis involved in this type of research. The reader should note that intra-household allocation of income and resources is a research theme which is sufficiently important and complex as to merit separate analysis. Rottman (1994) examines the way in which resources are allocated within households in Ireland and, as far as is feasible with the available data, addresses the extent to which particular types of individuals (for example, female spouses) are disadvantaged in terms of their access to those resources. In the remainder of this report, however, the unit of analysis at all times is the household.

1.3 Structure of Report

The purpose of this report, therefore, is to bring a new perspective to

⁶ Throughout most of this report we use a relative income poverty threshold. (In Chapter 5 we discuss changes in poverty status across a poverty benchmark based on relative income combined with indices of material deprivation.)

bear on the poverty debate within the constraints of data availability, both in Ireland and elsewhere. We begin in Chapter 2 by describing the background to the Irish data. We examine in detail what we mean by longitudinal data; how they were collected using a two-phase sample survey; and how they should be interpreted. The chapter also considers some of the limitations of the Irish data specifically in relation to sample size and selection. Concepts of disposable income and problems associated with estimating farm income are also discussed. Chapter 3 provides details on income mobility. It begins by reviewing some of the main findings in the international literature. It then attempts to relate these international trends in income mobility to the experience in Ireland. Consideration is given to the extent of absolute and relative or positional income mobility in Ireland as well as the factors associated with such change. Chapter 4 addresses poverty dynamics *per se*. The extent of poverty transitions and the events related to them are discussed in the context of issues emerging from the international literature; Chapter 5 considers changes in non-financial indicators of deprivation and access to material resources. By turning our attention to non-monetary indicators of household deprivation it provides a useful complement to the analysis of Chapters 3 and 4. Chapter 5 also considers the extent of poverty transitions using a threshold which is based on relative income combined with measures of material deprivation. Chapter 6 draws on some findings from a five-country comparative database which has been recently constructed with the specific aim of examining poverty incidence and dynamics over time at the European level. The details presented are, as far as possible, based on harmonised definitions of poverty standards and transitions. Although there are some definitional differences as well as differences in the reference periods in each of the five countries, the database represents the first effort at a European level to provide almost directly comparable details on cross-national trends in poverty transitions rates and related events. Finally, Chapter 7 summarises our findings, discusses their policy relevance and points the way to future research in this area.

CHAPTER 2

The Database

2. Introduction

In this chapter we discuss the background to the longitudinal dataset used in the report and also consider some of the key concepts used. The chapter is divided into seven subsequent sections. First, we look at what is meant by a longitudinal dataset and consider how such data differ from cross-sectional information; second, we report on sample selection procedures and response rates; third, we discuss the formation of new households over the study period and how these are handled in the data; fourth, we consider some particular problems which arise in estimating farm income; fifth, we discuss how the data were reweighted; sixth, we look at the concept of household disposable income and how this compares with the conventions used by the Central Statistics Office in its Household Budget Survey; finally, we present a summary of the main points raised in the chapter.

2.1 Longitudinal Data

This study must be seen in the broader context of the ESRI's Lifestyles and Poverty Research Programme which began in 1987. An important aspect of this programme was the development of a longitudinal or time series element in the study. Until this research programme was initiated, all research into poverty in Ireland was based on "once-off" cross-sectional studies. These involve administering a questionnaire survey to a sample of the population to collect information on their financial and economic circumstances at a single point in time. As noted in the previous chapter, examples of such cross-sections include O'Cinneide (1980), Joyce and McCashin (1982), Rottman *et al* (1982), and Roche (1984). Indeed, with the exception of the United States, most international research into poverty, income distribution and related areas has been carried out on this cross-sectional basis.

Cross-sectional and longitudinal studies essentially provide different perspectives on similar issues. Cross-sectional studies allow the

analysis of the level and correlates of poverty *at a single point in time*. They do not provide details on income or poverty dynamics over time. The most one can hope for, even in the comparison of successive cross-sectional surveys, is an analysis of *net* changes in the overall level of poverty between two points in time. The *gross* flows of people or households into and out of poverty cannot be examined. The only way of examining these sorts of poverty transitions is to undertake a longitudinal panel-survey. These panel surveys involve returning to the same set of households over a number of successive years and collecting a consistent record of their views, opinions and circumstances over time. By so doing, a comprehensive picture can be built up over the study period of the changes in household composition, their lifestyle and well-being as well as the mechanisms and processes underlying such change. Most importantly in the context of this report, longitudinal surveys can be used to measure the extent of income and poverty dynamics at the level of the individual household. They thus allow us to quantify the extent to which households fall into or graduate out of poverty in response to changes in their circumstances and characteristics.

A particularly important issue as regards longitudinal surveys is the exact definition of the longitudinal population to which one is attempting to gross the sample data. At least two schools of thought are equally valid as regards the definition of the longitudinal unit of analysis. The first assumes that the household or family can be taken as the unit of analysis as was done for the National Medical Care Expenditure Survey (Folsom, 1980) and the National Medical Care Utilisation and Expenditure Survey (Dicker and Casady, 1982). The second assumes that the longitudinal unit of analysis should be the individual household member to whom household and family characteristics would be attributed. This latter is the option chosen by most researchers using data from the

US Panel Survey of Income Dynamics. In reality the most appropriate unit of analysis depends on the issues under consideration. Throughout the remainder of this report we are concerned entirely with household-level analysis with all results being presented in respect of the aggregate *household* rather than the *individual* within the household.¹

2.2 Sample Selection and Response Rates

Two rounds of data have now been collected in the ESRI's Lifestyles and Poverty Research Programme.- The first round of data was collected in Spring 1987. The results of this were reported in detail in Callan *et al* (1988), Callan *et al* (1989) and Whelan *et al* (1991). The first phase of the Lifestyles survey involved collecting very detailed information from households in a target sample of 5,850. Interviews were undertaken with all persons aged 15 years and over, who had left full-time education and were resident in the household on a permanent basis. The target sample was selected using a multi-stage clustered sampling procedure based on the electoral register (for details of this system see Whelan (1979)). This sampling system has been developed in such a way as to give each individual on the register an equal probability of selection. The phase 1 effective sample was subsequently reweighted to eliminate potential bias which might arise from non-random non-response. Completed questionnaires were secured from a total of 3,294 households in the first round of interviewing. This represented an effective sample response rate of 64 per cent. This would be considered high for a detailed survey of this nature dealing with such sensitive and complex issues as income, wealth, financial well-being etc.²

¹ See Rottman (1994) for a discussion of the way in which resources are internally allocated within Irish families.

² For a full discussion of sample selection procedures, response rates etc in phase 1 of the survey see Callan *et al* (1989) Chapter 4.

The second wave of the Lifestyles and Poverty survey was undertaken in Spring 1989 and it is the data collected in that round which form the 'basis of our analysis of short-term income mobility and poverty dynamics throughout this report. Because of resource constraints it was not possible to return to all households which responded in the first phase, even though this would have been the preferred option. Instead, it was possible only to re-interview a subsample of households from the effective phase 1 sample. For phase 2, therefore, a total target sample of just under 1,300 households, approximately 40 per cent of the effective phase 1 sample, was used. To select this sample, households from the phase 1 effective sample were stratified by income quartile. Because the research programme is oriented towards poverty and the processes underlying its perpetuation, it was decided to include in the phase 2 sample all those households which were in the lowest income quartile in phase 1, along with a random sample of 500 households drawn from the other three quartiles. Sampling in this way meant that all those in poverty in phase 1 were included in the second survey. In so doing, sampling variances for this subgroup are minimised in subsequent analysis.

Table 2.1 presents details on response outcomes from the phase 2 target sample. From this we can see that there was a non-contact rate of 6 per cent (77 households) in the target sample of "original" households. Not unexpectedly, this is just half the rate of phase 1. When one excludes the non-contacts we find a response rate of 77 per cent in the effective sample and a refusal-rate of 16 per cent. The remaining 7 per cent of target households were either never available for interview or made up of people who were too ill or senile to complete the questionnaire.

Table 2.1: Response Outcomes from Phase 2 Target Sample

	Original Hsds ^a			Newly Generated Hsds ^a			Total Hsds ^a		
	n	Per Cent	Valid Per Cent ^b	n	Per Cent	Valid Per Cent ^b	n	Per Cent	Valid Per Cent ^b
Successfully Completed	926	72.4	77.0	50	25.0	61.0	976	66.1	76.0
Refusal	192	15.0	16.0	20	10.0	24.4	212	14.3	16.5
Never Available	69	5.4	5.7	12	6.0	14.6	81	5.5	6.3
Ill/Senile	15	1.2	1.3	0	0.0	0.0	15	1.0	1.2
		Sum	100.0		Sum	100.0		Sum	100.0
Non-Contacts ^c	77	5.9		118	59.0		195	13.2	
Total	1,279	100.0		200	100.0		1,479	100.0	

a - Hsds is Households

b - Based on total excluding non-contacts and emigrated

c - Includes emigrated; could not locate; household moved with no forwarding address; all household members deceased; all household members institutionalised; other.

2.3 New Household Formation

Households are neither fixed nor immutable phenomena. Their composition changes in response to a variety of labour market and lifecycle events. These include employment, marriage, birth and death. Thus, new members may join a household between subsequent phases of interviewing, others may leave. In common with all household-based panels it is necessary to record the extent of these compositional changes. It is also necessary to attempt to follow up and re-interview all new households which have been set up or generated in Ireland by persons who were originally resident in the set of households which were included in the first wave of interviewing. These "new" households are then incorporated into the ongoing panel.

A total of 200 of these newly generated households was identified in the course of interviewing for phase 2. The response outcomes for these 200 households are shown in Table 2.1. From this we can see that 59% of these new households were not contactable, 65% of whom had emigrated between the first and second phases of interviewing. As such, they no longer constituted valid elements in the Irish panel population of permanent private households and so were excluded from reweighting, etc.³

From Table 2.1 we can see that the total non-contact rate (including emigrants) among newly generated households was 59 per cent (118 households). When these are excluded we get a response rate of 61 per cent among the newly generated households and a refusal rate of just over 24 per cent. The remaining 15 per cent of valid generated households were never available for interview, despite repeated call-back.

Prior to analysis, a total of nine households had to be excluded due to a lack of sufficiently detailed information on income. This meant that we could successfully analyse questionnaires from 918 of the "original" households which were in the phase 1 sample and 49 of the newly generated households which were identified in the course of interviewing for phase 2, making a total of 967 valid questionnaires for analysis.

2.4 Farm Households

The importance of agriculture to the Irish economy has declined somewhat in recent years. None the less 15 per cent of those who are at work are still employed in the sector and as such it represents an

³ This clearly represents an exceptionally high level of emigration over the study period. It reflects the adverse economic environment of the time and associated trends in employment opportunities, particularly among younger cohorts in the population. For example, Sexton *et al* (1991:55) notes that annual net migration in 1987 stood at -32,000, in 1988 at -46,000 and in 1989 at -31,000.

extremely important area of economic activity. It is also a sector which presents particular problems in estimating average household income.

Table 2.2: Distribution of Irish Farms by Size

(Hectares)	All Farms	Full Time Farms
2-<10	17.1	1.7
10-<20	29.3	15.0
20-<30	17.6	27.8
30-<50	13.5	29.8
50-<100	6.9	17.9
100+	1.4	3.7
Hill Farms	14.3	4.0
Total	100.0	100.0

Source: After Tables 78 and 81 of *National Farm Survey*, 1988, Teagasc, Dublin: 1990.

The first problem relates to the size of farms in Ireland. Table 2.2 shows that 46 per cent of all farms and 17 per cent of full-time farms are under 20 hectares. A further 14 per cent are classified as "hill farms"; This relatively small scale of activity has certain consequences. For example, many of the smaller farms do not keep any formal accounts. Many consume quite substantial amounts of their own produce. This raises issues as to how to value such produce when measuring their income. In general, income cannot be interpreted as a flow concept for the vast bulk of farmers, particularly small ones. There is, therefore, no point in asking farmers to give details of their incomes in a questionnaire survey in the same way as one could of an employee who gets paid on a regular weekly or monthly basis. The nature of farming is such that answering direct questions on income is extremely difficult if not impossible. To

overcome this problem we estimate farm income indirectly on the basis of activity and output levels. On the basis of information collected in the second round of the survey we were able to classify farmers in terms of their acreage, soil type and farm system. Using average income coefficients provided to us by Teagasc we were able to derive an estimate of family farm income.⁴

A second and quite distinct problem in measuring farm incomes relates to the substantial fluctuation of that income from year to year. This is common to large and small farms alike. Table 2.3 shows trends in average family farm income over the period 1984 to 1988. We can see that 1985 and 1986 were particularly bad years for the agricultural sector. Incomes in the sector fell by 14 and 15 per cent respectively in these years. The table also shows that some farm systems performed better than others. In 1985, the fieldcrops, drystock/tillage and cattle systems experienced falls in income well above the aggregate average for farming as a whole. All sectors experienced a further downturn in 1986, with the exception of fieldcrops and drystock/tillage. It is clear from the data that there was a substantial recovery in farm incomes in both 1987 and 1988 (29 per cent and 22 per cent respectively). On a cumulative basis, farm incomes increased by 58 per cent over the period 1986/88. Particularly strong growth was experienced in the fieldcrops, drystock/tillage and dairying/cattle systems over the period in question.

These substantial fluctuations in farm incomes over the period 1984 to 1988 clearly have implications for income mobility and poverty dynamics among farm households.' The first round of interviewing was undertaken in 1987 and collected data on farm incomes in respect of 1986. This was one of the worst years in the decade for

⁴ These coefficients of average family farm income were broken down into a 126 cell matrix based on farm size (six groups), soil type (three groups) and farm system (seven groups).

agricultural incomes. The second phase of interviewing was undertaken in 1989 and collected details on farming in respect of 1988. This latter was one of the best years for farm incomes throughout the 1980s.⁵ These fluctuations in farm income mean that many farmers were classified as being in income poverty in phase 1. By phase 2 a large proportion of them had escaped due to the large sectoral recovery in incomes. Their escape had little, if anything, to do with the attributes or characteristics of their individual household. Instead, it was largely driven by the swing in sectoral incomes which are linked to factors such as climate, national and international crop yields, international price fluctuations etc. These swings are unique to agriculture. No other sector of economic activity is susceptible to this sort of income volatility over such a relatively short period of time. *Individuals* in other sectors may experience marked fluctuations in their income over time but in their case it is not a *sectoral* phenomenon.

Table 2.3: Annual Real Percentage Change in Average Family Farm Income Classified by Farm System, 1984 to 1988

Farm System	1984/85	1985/86	1986/87	1987/88	1986/88
	Per Cent				
Dairying	5.06	17.65	23.37	31.90	62.55
Cattle	24.18	16.89	32.22	15.32	54.81
Dairying/cattle	15.15	13.78	25.51	58.62	78.47
Sheep	5.27	19.59	39.33	15.47	59.58
Drystock/tillage	48.71	0.85	37.11	55.62	99.16
Fieldcrops	72.11	34.95	121.34	3.01	125.53
Total Farming	-13.73	-14.70	29.41	21.98	57.86

* Consumer price deflator used.

These problems of extreme income fluctuations were further exacerbated by some differences in the methodologies available to us for collecting and analysing farm income in the two phases of the survey. A special questionnaire was administered to all farmers in the first round of interviewing in 1987. This was used to collect detailed information on output and costs, overheads etc. These details were then used in conjunction with extremely disaggregated gross margin coefficients to estimate the respondent's family farm income. In the second phase of the survey in 1989 it was not possible to include a dedicated questionnaire for farmers. All information relating to farms was collected in the head of household questionnaire. We were able to collect details on livestock and crop levels, off-farm sales and labour costs. We were not able to go into sufficient detail, however, to collect information on various other direct and indirect costs. These include fertilisers, seeds, feedstuffs, machinery maintenance and depreciation, electricity etc. This lack of detailed cost elements meant that in the second phase of the research we were forced to estimate farm income using relatively aggregate average farm income coefficients.⁶

In the light of these considerations it is clearly impractical to include farm households in a general analysis of short-term income and poverty dynamics. In the remainder of this report, therefore, we concentrate exclusively on non-farm households. All households which received any agricultural income at either or both rounds of interviewing have been excluded from subsequent analysis. When farm households were excluded from our sample we were left with 679 unweighted cases for analysis.⁷

⁵ These swings in farm incomes over the study period are reflected in the figures from the two rounds of the survey data. The average phase 2 income of farm households showed a 39 per cent nominal increase over the study period. This represents a real increase (using a CPI deflator) of 31 per cent.

⁶ See footnote 4 above.

2.5 Reweighting the Data

When sample surveys are carried out it is necessary to reweight the data collected to eliminate non-random non-response bias and so ensure that the reweighted sample is representative of the population as a whole. This is usually carried out by ratio weighting techniques which compare the sample and the population from which it is drawn along various dimensions of a weighting matrix. Reweighting a single cross-sectional study in this way is a relatively straightforward exercise as one is dealing with the situation at one point in time. The situation as regards reweighting in the present survey was far from straightforward. Four distinct issues had to be addressed in the reweighting scheme. First, the reader is reminded that we are dealing with a longitudinal survey. Under such circumstances the weighting scheme used must reflect the dynamic nature of the population and sample. Secondly, we saw in the previous section that in the present study only a subsample of the households which were successfully interviewed in phase 1 was selected for re-interview in phase 2. The effect of this was that each household in the phase 2 target sample did not have an equal probability of selection. All households in the lowest income quartile in phase 1 were selected for inclusion in the second round of surveying along with a further 500 households selected at random from the top three quartiles. This meant that households in the lowest quartile each had a selection probability of unity compared with a selection probability of 0.2 for those households which were

⁷ The reason farm households featured so prominently in the second phase effective sample is a result of sample selection procedures adopted for that round of the project. We saw in section 2.2 above that all households in poverty in 1987 were included in the phase 2 target sample. Given the particularly low levels of family farm incomes in 1986 (the reference year in respect of which details on phase 1 farm incomes were collected) the risk of poverty among the farming sector was extremely high in that round of the survey and consequently a large number of farm households were included in the phase 2 sample. When reweighted to account for differential sample selection and response probabilities, the total number of non-farm households came to 767 (see section 2.5).

in the top three quartiles. Thirdly, we saw in Table 2.1 that the overall response rate among the target sample of "original" households was 72 per cent. This meant that questionnaires were *not* successfully completed by 28 per cent of households in the phase 2 target sample. Non-random bias could be introduced into the data if this non-response was concentrated among any subgroups of the target sample. For example, we found that response rates were in general slightly higher among rural than urban households because it was usually easier to contact the former. The reweighting scheme, therefore, must address the issue of potential non-random bias resulting from differential non-response among subgroups of the population. Fourthly, we noted above that households are not unchanging or immutable phenomena. In undertaking panel surveys one should follow up and reinterview all members of households which have been set up as a result of the fragmentation of original households. The reweighting scheme must incorporate a mechanism for assigning a weight to each of these newly generated households.

In summary, therefore, the weighting system had to address simultaneously four issues as follows:

- i. the longitudinal nature of the survey;
- ii. differential selection probabilities of phase 2;
- iii. differential response rates at phase 2;
- iv. new household generation between phases 1 and 2.

A two-stage reweighting procedure was devised to take on board these four issues. In the first stage of this reweighting, adjustment was made for the differential selection and response probabilities in the effective phase 2 sample using a ratio weighting procedure. This was done using a four dimensional weighting matrix based on Ca) urban/rural location; Cb) number of adults in the household; Cc) labour force status of household head and (d) phase 1 income

quartile. These dimensions were chosen for reweighting as they were the variables used in selecting the phase 2 target sample from the phase 1 effective sample. This first stage of reweighting ensured that the phase 2 sample of 918 households was grossed up in such a way as to be fully representative of the phase 1 effective sample of 3,294 households (from which the phase 2 target sample was selected).

A second stage of reweighting was necessary to ensure that when weighted up to 3,294 households; the actual 918 "original" households of phase 1 were in fact representative of the national population in 1987 (the base year in which the panel was initially selected). The ratio weight calculated at this stage was based on a four dimensional matrix of (a) urban/rural location of household; (b) number of adults in the household; (c) socio-economic group of household head and (d) age of household head. Note that the dimensions of this second stage weighting matrix are different from those of the first stage weight. The dimensions used at this second stage are consistent with those used in weighting the data in phase one. By readjusting the first stage weights by this second stage of reweighting, the structure of the 918 households in the effective phase 2 sample is the same as that in the national population of households in the 1986 Labour Force Survey.⁸ The final step in the reweighting procedure was to introduce explicitly the phase 1 weight assigned to each household. The overall weight assigned to each of the 918 households of phase 2 was the product of the weight calculated at stage one, stage two and phase 1. Because we are dealing with such a relatively small national sample we rescaled the

⁸ It should be noted that the second stage of reweighting was necessitated by differences in the dimensionality of the matrices used in phase 1 reweighting and phase 2 sample selection. The most important difference was, of course, the inclusion of phase 1 income quartile in the phase 2 sample selection matrix. The weight calculated at the second stage of phase 2 reweighting was in fact close to unity in most cells of the relevant matrix.

weights to yield a total of 918 households. This means that the average household weight-is unity.⁹

A further weighting problem arises in integrating the newly generated households into the dataset. Nothing is known of either the total population of new households nor any of their characteristics. This means that ratio weighting is not open to us as an option for grossing the newly generated households to some population total. Under such circumstances two options for their reweighting were available to us. First, we could have assigned to each the weight of the "parent" household which spawned the new household. Secondly, we could have assigned to each new household the average weight of all other households in the effective phase 2 sample. This average weight was unity. After exploring the implications of both options we chose the latter. It should be noted that throughout this report on *changes* in economic and poverty status between the two points of interview we exclude these newly generated households from our analysis and concentrate solely on those households which existed in 1987 and continued to exist in 1989 (ie at phases 1 and 2 of interviewing)..

2.6 Household Disposable Income

In Chapters 3 and 4 in this report we focus on a disposable cash income concept and changes therein over the study period.¹⁰ This disposable income concept was, as far as possible, comparable with that used in phase 1 of the Lifestyles and Poverty Research

⁹ Although weighted and unweighted data both sum to 918 households, the structure of the weighted and unweighted data is very different along the key weighting dimensions mentioned above.

¹⁰ The authors fully appreciate that in using this sort of concept we do not take account of the redistributive effects of indirect taxation or non-cash social services in areas such as health, education and housing. In an analysis of income and poverty dynamics over such a relatively short period as two years, the inclusion of an imputed value for social service utilisation could be potentially misleading in terms of measuring a households' actual command over resources and changes therein.

Programme and also in the CSO Household Budget Survey. It includes all earned income from the following sources: employment, self-employment (agricultural and non- agricultural); state training or employment schemes; interest and dividends; retirement pensions (public and private); rental income; annuities; trusts or covenants; strike or sick pay; and other receipts such as private income continuance or sickness insurance, wet-time payments; educational grants/scholarships etc. Our disposable income concept also included all transfers through the social welfare system including Child Benefit, Supplementary Welfare and Family Income Support.¹¹

The only deductions from gross income taken into account in the disposable income concept are compulsory income tax and PRSI payments. Other deductions at source such as superannuation, life and health insurance premia etc. were interpreted as a component of disposable income, in line with CSO practice.

Where feasible, income details were collected in respect of the most recent pay period (eg week, fortnight, month). No adjustment was made for temporary or abnormal increases or decreases in the most recent pay figure. For the self-employed (both agricultural and non-agricultural¹²) it was necessary to take a longer term perspective on the accounting period used. In both instances, an estimate of annual income was made. Disposable income from all sources and for all household members was converted to a weekly basis prior to analysis.

¹¹The only difference between ESRI and CSO coverage of income components was the latter's inclusion of an imputed value for free meals, food and fuel received from an employer. The CSO added an imputed value for these items to its "Other Direct Income" subhead. (For details see *Household Budget Survey, 1987*, Vol 1, appendix 3). This is obviously a negligible component of total disposable income.

¹²The reader is reminded that although income estimates were derived for farm households these households were not included in the present study.

2.7 Summary

In this chapter we examined the background to the longitudinal dataset in our analysis of short-term income and poverty dynamics. Sample selection procedures were discussed in detail as these have substantial implications for the way in which the data should be interpreted.

The chapter also considered in some detail the extent to which average farm incomes are subject to major fluctuations from one year to the next. These sectoral-level fluctuations are of such a substantial nature that they would completely mask any changes in the income and poverty status of the household which could be related to changes in the characteristics of the individual household itself. For example, 1986 was the reference year in respect of which details on farm incomes were collected in phase 1. This was the worst year of the decade for average farm incomes. The second phase of the survey collected details on farm incomes in respect of 1988. This was one of the best years for income in the sector throughout the 1980s. These fluctuations meant that many farm households which were classified as being in poverty in phase 1 had escaped from poverty by phase 2. The escape for a large proportion of them, however, was due more to the general sectoral recovery in incomes than to changes in their own circumstances or characteristics. In this context, it is fair to say that the processes and mechanisms underlying income mobility and poverty dynamics among farm households are quite different to those among non-farm households: 'For this reason the analysis in this report concentrates exclusively on the non-agricultural sector.'

In addition to farm households we also excluded from our analysis those households which were set up over the study period as a result of "split-offs" from original phase 1 households. This means that the longitudinal population in profile included in the report is the set of

non-agricultural households which existed in 1987 and which continued to exist into 1989.

Other major issues examined in the chapter included the concept of disposable income used throughout the report as well as the reweighting procedures used to eliminate non-random non-response bias in the effective sample. In the Appendix we include a series of tables which present some comparisons between reweighted sample data and published information from the census and other sources. These comparisons serve as a yardstick of the efficacy of the reweighting system used.

CHAPTER 3

Income Mobility

3. Introduction

In Chapter 1 we identified four main interrelated research topics in the area of income and poverty dynamics. These are (i) income change and related events; (ii) level of poverty transition and duration of spells; (iii) events related to poverty transitions; and (iv) a comparison of the characteristics of the long- and short-term poor. In this chapter we focus on the first of these four topics *viz* income mobility and the factors underlying it. We consider some of the main findings to emerge in this area from recently published international research. We then consider, as far as is feasible, how the situation in Ireland compares with trends from the international literature.

The chapter is divided into five subsequent sections. First, we briefly review some of the main findings on international income mobility from the poverty dynamics/panel research literature. Secondly, we examine the extent of change in household income in Ireland over the study period, focusing on both absolute and relative or positional change. Thirdly, we examine the factors associated with absolute change and income mobility. Fourthly, we consider the factors associated with positional income mobility. Finally, we present a summary of our main findings.

3.1 Income Mobility - The International Experience

3.1.1 The Extent of Income Mobility

There is a particularly thin line between income mobility, changes in the income/needs ratio and poverty dynamics. Much of the recent panel-based research has focused on poverty dynamics rather than specifically on income mobility *per se*. A few studies do, however, concentrate on economic mobility and we focus on these in this section.

Duncan and Morgan (1981) and Duncan (1984) examine income mobility in the United States over the period 1971-1978 by looking at

the extent of change in relative income position over that period. When classified by income quintile they find that 41 per cent of the US population did not change their position over the period in question, 30 per cent moved to a higher quintile and 29 per cent to a lower one. Furthermore, just over 9 per cent of the population improved their position by more than one quintile while 11 per cent experienced a fall of more than one quintile (see, for example, Duncan and Morgan, 1981, Table 1.1).

In a comparable study Fritzell (1990) found a remarkably similar level of economic mobility, at an aggregate level, among the Swedish population over the period 1973-1980. A total of 40 per cent of the Swedish population did not change its quintile position over the period, 28 per cent moved to a higher quintile and 32 per cent to a lower one. Approximately 10 per cent of the Swedish population (of persons) improved their position by more than one quintile while 13 per cent experienced a fall in the income distribution by more than one quintile. On the evidence presented in these studies, therefore, stability or improvement seems to have been the predominant trend over the period in question. It is important to note that in both instances we are dealing with seven-year study periods. It seems reasonable to assume that the shorter the study period the greater would be the level of stability. The next issue to which we must turn is the events and processes associated with income change.

3.1.2 The Events Associated with Income Mobility

Data from the Panel Study of Income Dynamics (hereafter referred to as the PSID) suggest that in the United States the single most important factor associated with changes in the economic status of individuals is changes in family composition. Furthermore, Duncan (1984) notes that changes in family structure had a greater impact on the economic mobility of women than of men. He attributes this to

three factors. First, there is a greater tendency for children to live with their mother after a separation, thus adversely affecting their income/needs ratio. Secondly, he notes that alimony and maintenance settlements in the US are often low and paid only on an infrequent basis. Thirdly, he notes that, on average, hourly females earnings are below those of men.

The effects of marital disruption on income status can be quantified if one considers that a woman who was "married" in 1972 and who was still "married" in 1978 experienced an absolute real income growth of \$3,086 over the period in question. This compared with a fall in income of \$5,267 for women who were widowed over the period and a fall of \$7,385 for those who became divorced or separated. This suggests that the annual income differential between staying married and becoming divorced or separated is approximately \$10,500.

The corollary of marital disruption - ie marriage - was found to have a substantial and positive impact on the economic wellbeing of women. For example, Duncan (1984) found that women who got married over the study period were substantially better off than those who began and remained unmarried throughout the period. Those who married experienced an absolute real increase in income of \$15,357 compared with an increase of only \$864 for those who remained unmarried. This represents an absolute differential of over \$14,500.

Of all subgroups considered by Duncan the income status of children! was most influenced by family composition changes. For example, a

¹ A substantial proportion of poverty research based on PSID data has been undertaken at the level of the individual within the household. In such analysis the economic well-being of the individual is usually measured by his/her family's income or income/needs ratio. (See Duncan (1984:12) for a full discussion.) Most of this research is based on annual, as compared to current, household or family income.

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child in a household in which the parents stayed married over the period in question experienced a real income increase of \$6,995. This compared with a *fall* in income of \$6,602 for children in families where the parents divorced or separated. Likewise the marital status of women who headed households with children has important implications for the economic wellbeing of those children. Children in households headed by a woman who was unmarried in 1972 and who remained unmarried throughout the period experienced an absolute increase in real income of \$1,088. The comparable change in family income for children who were in families headed by a woman who was unmarried in 1972 but was married by 1978 was \$10,521 (see Duncan, 1984, Table 1.3).

Although changes in household composition have the greatest effect on economic well-being other factors were found to be of relevance. The PSID data suggest that labour force experience, although of secondary importance after household structure, has a major influence on economic status and changes therein. These labour market events have most impact on household income where the male head of household becomes unemployed. Unemployment of women (other than for households which are headed by women or those in which the woman is the only income earner) does not have such a significant effect on total family income. Movement by women into or out of employment is associated with an average change in income of about \$2,000. The comparable figure for men is between \$7,000 - \$9,000.

The final set of characteristics which Duncan attempts to relate to fluctuations in economic mobility is personal attributes and level of motivation. His hypothesis is that those with higher initial scores on the motivation and attitudinal indices will have an increased probability of improving their economic wellbeing over the study period. He concludes, however, that there is "... almost no evidence

that initial attitudes affect subsequent economic success" (Duncan, 1984:25). This may, in part at least, be attributable to conceptual and measurement problems associated with the construction of an adequate motivation indicator.

Duncan's findings for the United States are, not surprisingly, echoed in an earlier study by Morgan *et al* (1974). The Morgan study examined in greater detail change over the period 1971-1978. Using simultaneous multiple regression techniques to track transitions in economic mobility the authors summarise their findings on the correlates of economic mobility by noting that:

... the changes in family composition and labour force participation and the demographic background facts dominated the explanation of change in economic status. If people's own attitudes or behaviour or environment affect their economic situations, they must do it through changes in family composition or labour force participation ... The overall result ... is that we find that changes in family composition and labour force participation so dominate changes in family well-being that nothing else seems to matter very much (Morgan *et al* 1974:78).²

Fritzell (1990) also examines the determinants and causes of economic mobility, comparing the situation in Sweden with that in the United States. Three different measures of change in economic status over the period 1973-1980 are used. These are: (i) real absolute change in income over the study period; (H) real annualised percentage change between the two years to give a measure of relative change; and (Hi) change in the percentile distribution of income to give a measure of positional change (see Fritzell, 1990:31). The unit of analysis is the individual and the independent variable set includes family

² It should be noted that the dependent variable used in Morgan *et al* (1974) is income-to-needs ratio. As such it should more rightly be interpreted as a measure of change in poverty status than as a measure of change in income *per se*.

composition variables, labour, market status, initial level of income in 1973, level of educational attainment and age. Using multiple regression techniques it was found that the family composition variables are extremely important for both men and women. Remaining single has a strong negative effect on economic wellbeing, as does marital disruption. This latter was of particular relevance to women. For example, separation over the period 1973-1980 was associated with a fall in absolute real income of 23,000 kroner for women compared with just under 8,000 kroner for men. The corollary of this is the strong and positive effect of marriage for both men and women (16,200 and 19,200 kroner respectively). It is noteworthy that in Sweden marriage and separation have an impact on the economic status of both men and women. This contrasts with the situation in the United States. Most of the published research in the US, based on PSID data, suggests that these changes were found to impact almost exclusively on women and to be of little relevance for men.

When labour market variables are introduced into the equations it is found that starting a job has a strong positive effect for men but a non-significant one for women. Ending a job had less of an impact on men than women, though a spouse losing his/her job had a more significant effect on men than women. Notwithstanding the significance of some of the labour market variables the primary importance of the family composition subset remains largely unchanged even when the labour market variables were included. Overall, it was found that an education effect on economic wellbeing, though significant, was modest. Age had a considerable effect for both men and women, especially for men in the 45-49 year age group and younger women up to the age of 45 years. The substantially reduced effects of age on economic wellbeing when labour market variables are included in the equations, suggests however, that age effects work indirectly through the labour market.

In general, therefore, the data for both Sweden and the United States suggest that there is a substantial level of economic stability in both countries. We saw that approximately 40 per cent of persons maintained the same income quintile position in both countries between the early and late 1970s, 29 per cent moved to a higher quintile and 31 per cent to a lower one. Change in economic status was primarily associated with change in family composition and, to a lesser degree, labour market events. Marriage substantially enhances the economic fortunes of women in both countries. Divorce, separation and widowhood have the opposite effect. It is interesting to note in this context that in Sweden marriage and separation were found to have an impact on the economic status of both men and women, whereas in the United States these changes were found to impact almost exclusively on women and to be of little relevance for men. This was particularly true of marital disruption. In the US women were disadvantaged to a significantly greater degree by separation or divorce than were men. These gender differences may be attributable, in part at least, to three factors *viz* (i) aspects of the Swedish social welfare code which are specifically aimed at cushioning the effects of marital disruption; (ii) a higher female labour force participation rate in Sweden than in the US; and (iii) individual tax assessment even for married couples. These factors help to lessen a woman's economic dependence on her husband in Sweden relative to the United States.

3.2. The Extent of Change in Household Income:

The Irish Experience

Having reviewed some of the main findings from the international literature on income mobility and the factors associated with it we now turn to a consideration of the extent of income change in Ireland. We reiterate that we are dealing with a particularly short period of time (approximately 18 months between the first and second round of interviewing). The income concept we are dealing with is *household*

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disposable income and all analysis is based at the *household* level. This contrasts with much of the published research based on the Panel Survey of Income Dynamics in the United States where analysis on economic mobility is carried out at the level of the *individual*.

To allow meaningful interpretation of change and trends in household income we must first adjust it for differences in household size, structure and composition. We do this by using equivalence scales to provide us with a measure of equivalised or adjusted income.

3.2.1 Equivalence Scales

Households differ in terms of their size and composition. The consumption patterns and budget requirements of small households are obviously very different from those of larger ones. In turn, a household with a large number of *adults* faces a consumption set which is substantially different to that faced by a household with a large number of *children*. These differences mean that it is extremely difficult to make meaningful comparisons of unadjusted household income. It is not sufficient simply to calculate income per household member because consumption needs and associated costs are not constant either across all adults or between adults and children. Economies of scale will result in decreasing marginal costs of adults and, in general, the costs of children will be below those of adults. To overcome these problems we use equivalence scales to bring total household income to a common base and so allow meaningful comparison between different household types. In so doing, one attempts to bring the number of persons in the household to a common metric - *viz* adult equivalents - by applying a system of weights to all members of the household. Total household income is then expressed on a per capita adult equivalent basis.

The use of equivalence scales is not without its problems. For example, an important theoretical issue is the underlying assumption

that scales are invariate with- income. In other words, by applying constant weights to adults and children we are implicitly assuming that the costs of those adults and children increase in direct proportion with income.³ A further problem is the choice of equivalence weights which should be attributed to each adult and child within the household. Analysis based on equivalent income can be extremely sensitive to the weighting factors used in the equivalence scales. Buhman *et al* (1988) examine the sensitivity of estimates based on equivalent income using 34 different equivalence scales across ten different countries. They conclude that:

... choice of equivalence scale can systematically affect comparative, absolute and relative rankings of countries (or groups within countries) with respect to ineasured inequality and poverty. Because of these sensitivities, one must carefully consider summary statements and policy implications derived from cross-national comparisons of poverty and/or inequality (1988:140).

One should note that in this report we concentrate on *changes* in equivalent income and poverty status over time. As such, the problems of the sensitivity of our estimates to the equivalence weights used is not such an important issue. Provided we use the same weights in both years and focus on income and poverty *change* the question of sensitivity of results to equivalence scale used becomes a *somewhat* less important issue. Throughout the remainder of this chapter we use the following equivalence weights: head of household 1.0; other adults 0.7 and child 0.5.⁴

³ For discussion of this particular problem see Conniffe and Keogh 1988:94fO

⁴ These weights are in line with those used in studies for the EC Commission. In Chapter 4 two additional sets of weights are used *viz* (i) 1.0; 0.6; and 0.4; and (H) 1.0; 0.66; and 0.33 (for household head; other adult and child(ren) respectively). The former weights are comparable with the UK Supplementary Benefit Scheme rates and the latter are based on the relativities implicit in the Irish UA/SWA schemes. (See Callan *et al* (1989:62-63) for a full discussion.)

3.2.2 The Extent of Income Change in Ireland, 1987-1989

The survey data can provide us with at least three measures of income change over the study period. The first of these is percentage change in average household income; the second is the distribution of households according to ranges of percentage change in income; the third is relative or positional change within the income distribution. Using the combined data from phases 1 and 2 of the survey we address each of these measures in turn.

Average Change in Household Income

The survey data indicate that average income among non-farm households in phase 1 was IR£207.47. By the second phase of the research this has risen to IR£213.29, representing a nominal increase of 2.8 per cent. When one adjusts for inflation (using the Consumer Price Index) one finds that the survey data suggest a real fall in average household income in the order of 3 per cent. There is no directly comparable benchmark against which to measure these estimated changes. One possible source of information for comparison is the National Accounts figures. These latter data suggest a real increase in non-farm income in the order of 35-4.0 per cent. The reader should note, however, that there are very substantial differences - conceptual as well as measurement- between the National Accounts figures and those derived from the survey data. The extent of these differences are such that a direct, quantifiable comparison is not feasible and so the most one can say is that the estimates of change in the average level of income among non-farm households based on the survey results seem to be low relative to those which could be derived from National Accounts data.

Households Classified by Range of Percentage Change in Income

An alternative way of looking at changes in income is to examine the distribution of households classified by percentage change ranges. Table 3.1 presents details of this distribution for both adjusted and unadjusted income. From this we can see that a total of 52 per cent of households

experienced a real increase in equivalent income over the study period. Almost one half of households (48 per cent) experienced a real change in equivalent income in the range +/- 15 per cent. The extremes of the distribution deserve comment.; We can see that 3 per cent of households experienced a real fall in equivalent income of more than 50 per cent. At the top end of the distribution 3 per cent of households had a real change in equivalent income of more than 100 per cent and just over 9 per cent of households had a percentage income change over 50 per cent. On face value these changes at the two extremes of the distribution seem to be excessively large. It should be noted, however, that the percentage changes at the top end of the distribution are coming off a particularly low phase 1 base. For example, the 3 per cent of households which experienced a real increase in equivalent income in excess of 100 per cent were coming off an average phase 1 income of IR£33.29. This figure represents only 38 per cent of the aggregate average phase 1 equivalent income of IR£87.39 for the population as a whole. Similarly, households which experienced a real increase of 50-100 per cent had, on average, a phase 1 equivalent income of IR£61.41 which represents just over 70 per cent of the population average at that round of interviewing. It should be noted that many of the households in the upper end of the distribution in Table 3.2 were ones which were in a state of income transition when they were interviewed in phase 1. The reader is reminded that the income concept used is *current* income. In some cases in phase 1 we found that households were in a state of transition as, for example, where the household head had just left the household in the days immediately preceding the interview, leaving an unsupported spouse with children. Alternatively it could be due to an important household income earner having lost his/her job immediately prior to the survey. In such cases households could be waiting for social welfare claims to be processed or even applied for. This would result in a particularly low level of income being recorded

^s We draw the reader's attention to the fact that the absolute number of reweighted cases in these categories (shown in the last column of Table 3.2) is relatively small.

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for these households at the first round of interviewing. By phase 2 of the survey these households would find themselves in a more permanent and stable income position (either as a result of social welfare transfers, re-employment etc).

Table 3.1: Distribution of Households Classified by Percentage Change in Adjusted and Unadjusted Income Over the Study Period.

Percentage Change 1987-89	Per Cent of Households		Weighted N for Adjusted Income
	Unadjusted Income	Adjusted Income	
	Per cent	Per cent	(N)
-50 - -85	4.4	3.3	(26)
-35 > -50	7.1	7.9	(60)
-15 > -35	15.0	15.4	(118)
-5 > -15	14.1	12.1	(93)
0 > 5	7.4	8.7	(67)
0 < 5	9.6	10.8	(83)
5 < 15	15.6	16.0	(123)
15 < 35	11.7	10.5	(80)
35 < 50	5.8	5.9	(45)
50 < 100	5.4	6.1	(47)
100 +	3.7	3.2	(25)
Total	100.0	100.0	(767)

Equivalence scale used was 1.0; 0.7; 0.5 for household head; other adult and children respectively.

Relative or Positional Income Change

A third way of analysing change in household income is to examine changes in the relative position of households in the income distribution over the study period. We do this using income quintile transition tables. These allow us to compare a household's position in the income distribution at two points in time and so to

quantify the extent of income mobility over the period. To construct the quintile transition table households are sorted in terms of income (or equivalent income). They are then grouped into quintile ranges such that each range contains 20 per cent of households. Table 3.2 presents details on the extent of income mobility measured on the basis of income quintile transition. From this we can see that, in unadjusted income terms, a total of 56 per cent of households did not change their quintile position over the study period. A total of 21 per cent experienced an improvement while the remaining 22 per cent experienced a deterioration. Comparable figures based on equivalent income are 52 per cent, 24 per cent and 24 per cent respectively. In general, those who changed their relative position did so by only one quintile. The figures show that just over 75 per cent of those who experienced an improvement in their equivalent income position did so to the extent of a single quintile shift.

Table 3.2: Extent of Relative Income Mobility Based on Quintile Transition for Unadjusted and Equivalent Income

Change Phase 1/Phase 2	Unadjusted Income		Equivalent Income ¹	
	Percent	(N)	Per cent	(N)
Fall > 1 Quintile	3.8	(29)	7.2	(55)
Fall 1 Quintile	18.6	(143)	16.6	(127)
Unchanged	56.4	(432)	51.8	(397)
Rise 1 Quintile	16.3	(125)	18.5	(142)
Rise > 1 Quintile	5.0	(38)	6.0	(46)
Total	100.0	(767)	100.0	(767)

¹ Equivalent weights used were 1.0; 0.7 and 0.5 for household head; other adults and children respectively.

Likewise, 70 per cent of those who experienced a fall in their relative equivalent income position did so to the extent of one quintile.

Overall, therefore, the data presented in this section suggest that for the vast majority of households absolute, percentage and relative income position did not undergo very substantial change over the study period. This is largely as one would expect, given that the interval between interviews was approximately 18 months. These results are generally in line with the overall stability found in the seven year study periods for the US and Sweden discussed in section 3.1 above. Duncan and Morgan (1981), Duncan (1984) and Fritzell (1990) found that over a seven-year period in the 1970s approximately 40 per cent of their relevant populations did not change income quintile positions. Approximately equal proportions (about 30 per cent) moved to higher and lower positions respectively. Most movement was within a one-quintile range.

3.3 Factors Associated with Household Economic Mobility: Average Income Change

In section 3.1 we discussed the evidence emerging from the international literature on the events associated with changes in short-term income status. We now turn to a consideration of the factors which can be identified from the available Irish data to be most strongly associated with income mobility and to compare the Irish situation with the international experience. In the remainder of the chapter we focus on the number of economically active members in the household as well as changes in the employment status of the household head. In view of the evidence from the United States' data the reader may feel that it would seem pertinent to consider also such issues as change in family composition over the study period. The available data suggest, however, that there was only a limited degree of change in household composition over the period in question. For example, a total of 72 per cent of households experienced no change in composition while a

3.3.1 Number of Economically Active Household Members

Table 3.3a presents details on the average income of households at each round of the survey classified by number of economically active household members. We can see that there is a strong and positive relationship between household income and number of household members who are economically active. In phase 2, for example, the average equivalent income of households containing three or more economically active members is 65 per cent above the aggregate average of IR£85.79.

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A succinct measure of the statistical relationship between two variables is given by the Pearson's correlation coefficient. This coefficient ranges from +1 through zero to -1. A value of +1 indicates that there is a perfect, smooth and positive relationship between the two variables in question such that as one increases the other increases or as one decreases the other decreases. A correlation coefficient of zero would indicate that the variables in question are not related.

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Change in Number of Economically Active Household Members	Unadjusted Income			Equivalent Income			Weighted
	Phase 1	Phase 2	Real % Change	Phase 1	Phase 2	Real % Change	
	IR£		Per cent	IR£		Per cent	(N)
-2 or more	376.02	220.70	-41.3	94.71	69.27	-26.9	(18)
-1	314.45	260.96	-17.0	117.63	103.14	-12.3	(104)
0	200.62	193.01	-3.8	84.24	81.35	-3.4	(556)
1	205.22	292.40	42.5	71.53	100.31	40.2	(72)
2+	155.36	365.19	135.1	47.58	95.51	100.7	(6)
Total	219.91	213.29	-3.0	87.39	85.79	-1.8	(767)

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A coefficient of -1 indicates a perfect but negative relationship between the variables, ie as one increases the other decreases in exactly the same proportion and vice versa. The correlation coefficient between number of economically active household members and level of unadjusted income is 0.79 in phase 1 and 0.75 in phase 2. These figures suggest a very significant⁷ and strong relationship. The square of the correlation coefficient provides a measure of the amount of variance in household income which can be statistically related to the number of economically active members (where the latter is taken in isolation from all other influences). This means that approximately 63 per cent of the variance in unadjusted household income can be related to the number of economically active household members in phase 1. The figure for phase 2 is just under 57 per cent.

The correlation coefficient between absolute change in unadjusted household income over the study period and change in the number of economically active household members is calculated to be 0.48. This suggests a reasonably strong relationship and implies that change in the number of economically active members can be related to 23 per cent of the variance in the absolute difference in unadjusted income over the study period.

Table 3.4 pursues the relationship between the number of economically active members and household income change. The table classifies households in terms of their number of economically active members at both rounds of interviewing. Although one has to take account of the relatively small number of cases in certain cells the data largely speak for themselves. For example, we can see that, in terms of adjusted income, households which had no economically active members at both rounds of interviewing experienced an

⁷ Both coefficients are statistically significant at the 0.01 level.

⁸ Statistically significant at the 0.001 level.

aggregate increase in income of 2 per cent over the study period. Those which went from a position of no active members in phase 1 to one member in phase 2 experienced an increase in average income of almost 63 per cent. Likewise, households which went from a position of having one active member in phase 1 to two members in phase 2 experienced an increase in income of 37 per cent. Comparable trends in the opposite direction are equally evident among households which experienced a fall in the number of economically active members.

Table 3.4: Average Weekly Household Equivalent Income in Constant 1988 Terms for Phases 1 and 2 Classified by Number of Household Members who are Economically Active in End Phase

Number of Household Members Economically Active in Phase 1	Equivalent Household Income No Hsd Members Econ Active in Phase 2		
	None	One	Two+
None:			
Average Phase 1	58.41	40.10	
Average Phase 2	59.58	65.2;	
Percentage Change	2.0%	62.6%	
(N)	(250)	(23)	
One:			
Average Phase 1	85.18	87.31	84.34
Average Phase 2	69.01	84.32	115.57
Percentage Change	-19.0%	-3.4%	37.0%
(N)	(45)	(195)	(46)
Two+:			
Average Phase 1		136.97	131.77
Average Phase 2		119.80	123.47
Percentage Change		-12.5%	-6.3%
(N)	(10)	(46)	(148)

Equivalence scale used: household head 1.0; other adult 0.7; child 0.5.

3.3.2 Labour Force Status of Household Head

The head of household clearly has a central role in terms of his/her contribution to total household income. In phase 2, for example, the income of the household head on average accounted for 77 per cent of total income among non-farm households. In this context, therefore, his/her economic status and changes therein is obviously of great importance to the economic wellbeing of the household.

Table 3.5 allows us to quantify the effect which economic status of household head has on the income status of the household. From this we can see that, for example, the average equivalent income for a household headed by an employed person is approximately 23 per cent higher than the average for the total population at each round of interviewing. This contrasts, for example, with the equivalent income of households headed by an unemployed person, whose average income is approximately 46 per cent *below* the population total. The reader should note that in Table 3.5 we are looking at group averages at two points in time. We are using the longitudinal dataset purely in cross-sectional terms and as such are saying nothing about the dynamics *per se* of individual households.

Table 3.6 addresses the issue in a longitudinal sense. The data presented show the relationship between changes in the labour force status of household head and changes in income. We can see that the average income of households which were headed by someone whose status changed from employed to unemployed over the study period fell by approximately 29 per cent (in adjusted income terms). This compares with the increase of almost 46 per cent in average income among households headed by someone whose status went from unemployed to employed over the study period.⁹

⁹ Note that these figures are based on a particularly small number of reweighted households in the relevant cells of the table.

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Table 3.5: Average Household Equivalent Income in Phases 1 and 2 Classified by the Labour Force Status of Household Head at Each Round of Interviewing

Labour Force Status of Household Head ⁽¹⁾	Equivalent Income Constant 1989		Weighted (N)	
	Phase 1	Phase 2	Phase 1	Phase 2
	IR£	IR£		
Employed	107.46	104.76	(404)	(380)
Unemployed ⁽²⁾	47.71	46.34	(95)	(92)
Other ⁽³⁾	71.46	73.46	(268)	(295)
Total	87.39	85.79	(767)	(767)

(1) Labour Force Status of Household Head relates to phases 1 and 2 as appropriate.

(2) Includes those seeking first regular jobs; on a state employment or training scheme; unemployed; and temporarily unemployed due to illness but intending to work again.

(3) Includes those unable to work due to permanent illness or disability; retired; engaged in home duties; in full-time education; and 'other' status.

A further point highlighted by the data is the substantially disadvantaged income position of households which, in phase 2, are headed by someone who was unemployed at both rounds of interviewing compared with those which are headed by someone who moves from an employed to unemployed state over the study

¹⁰ The employment status of household head used in Table 3.6 relates to status at the point of interview at each round of the survey. It is clearly possible for this status to have changed from unemployment to employment and back again in the period between interviews. If this were the case it would be inappropriate to describe this subgroup as the longer-term unemployed. The number of cases involved is small. The data suggest, however, that in only 12 per cent of these households did the employment status of household head move into any of the employment categories (employee, self-employed, etc) in the period between interviews. There was some change in status among the remaining 88 per cent of household heads in this subgroup. This, however, was mostly related to movement onto and off state training and employment schemes.

period. For example, the phase 2 average equivalent income of a household headed by someone who was unemployed at both rounds of interviewing is £41.81. This compares with an average equivalent income of £59.16 for households headed by someone who was employed in the first phase but unemployed in the second. This is obviously related to social insurance benefits running out over the study period for the longer-term unemployed.¹⁰

Table 3.6: Changes in Household *Equivalent* Income in Constant 1989 Terms for Phases 1 and 2 Classified by Labour Force Status of Household Head at Each Phase of Interview

labour Force Status of Household Head Phase 1	Equivalent Income ⁽¹⁾ labour Force Status of HoH, Phase 2		
	Employed	Unemployed	Other ⁽¹⁾
	IR£	IR£	IR£
<i>Employed:</i>			
Average Phase 1	108.79	74.69	118.91
Average Phase 2	106.19	59.16	101.55
Percentage Change	-2.4%	-28.8%	-14.2%
(N)	(354)	(23)	(26)
<i>Unemployed:</i>			
Average Phase 1	58.53	43.08	
Average Phase 2	85.41	41.81	
Percentage Change	45.9%	-2.9%	
(N)	(26)	(66)	(4)
<i>Other⁽²⁾:</i>			
Average Phase 1			71.48
Average Phase 2			71.09
Percentage Change			-0.5%
(N)	(0)	(3)	(265)

(1) Equivalence scale: head of household 1.0; other adult 0.7; child 0.5.

(2) 'Other' labour force status includes: those unable to work due to permanent illness or disability; retired; engaged in home duties; in full-time education; and 'other' status.

3.4 Factors Associated with Household Economic Mobility: Relative Income Change

In the previous section we examined change in absolute income and the factors associated with such change. An alternative approach to studying income mobility is to examine the household's relative or positional change in the income distribution. This can be done using quintile transition tables. We saw from Table 3.2 above that 52 per cent of households did not change their equivalent income quintile position over the study period; a further 24 per cent moved to a lower income quintile position and 24 per cent moved to a higher one. In this section we identify the factors associated with these positional income changes over the study period.

3.4.1 Number of Economically Active Members

The relationship between change in relative income status and number of economically active household members is examined in Table 3.7. This table classifies households according to Ca) their number of economically active members in both phases of the survey and Cb) change in the household's relative position in the income distribution over the study period. This is defined in terms of staying in the same income quintile, rising or falling. Results are presented only for cells containing more than 20 cases. Even with this caveat in mind the reader should once again note the relatively small number of cases in certain cells.

From the data we can see that the probability of staying in the same income quintile or moving to a higher one is strongly related to changes in the number of economically active household members. Consider, for example, households which had one economically active member in phase 1 and two or more active members in phase 2. We can see that just over 5 per cent of such households experienced a deterioration in their quintile position over the study period, 41 per cent remained in the same quintile position and the remaining 54 per cent experienced an improvement in quintile position. The opposite

period. For example, the phase 2 average equivalent income of a household headed by someone who was unemployed at both rounds of interviewing is £41.81. This compares with an average equivalent income of £59.16 for households headed by someone who was employed in the first phase but unemployed in the second. This is obviously related to social insurance benefits running out over the study period for the longer-term unemployed.¹⁰

Table 3.6: Changes in Household Equivalent Income in Constant 1989 Terms for Phases 1 and 2 Classified by Labour Force Status of Household Head at Each Phase of Interview

Labour Force Status of Household Head Phase 1	Equivalent Income(!) Labour Force Status of HoH, Phase 2		
	Employed	Unemployed	Other(2)
	IR£	IR£	IR£
<i>Employed:</i>			
Average Phase 1	108.79	74.69	118.91
Average Phase 2	106.19	59.16	101.55
Percentage Change	-2.4%	-28.8%	-14.2%
(N)	(354)	(23)	(26)
<i>Unemployed:</i>			
Average Phase 1	58.53	43.08	
Average Phase 2	85.41	41.81	
Percentage Change	45.9%	-2.9%	
(N)	(26)	(66)	(4)
<i>Other²:</i>			
Average Phase 1			71.48
Average Phase 2			71.09
Percentage Change			-0.5%
(N)	(0)	(3)	(265)

(1) Equivalence scale: head of household 1.0; other adult 0.7; child 0.5.

(2) 'Other' labour force status includes: those unable to work due to permanent disability; retired; engaged in home duties; in full-time education; and 'other' status.

3.4 Factors Associated with Household Economic Mobility: Relative Income Change

In the previous section we examined change in absolute income and the factors associated with such change. An alternative approach to studying income mobility is to examine the household's relative or positional change in the income distribution. This can be done using quintile transition tables. We saw from Table 3.2 above that 52 per cent of households did not change their equivalent income quintile position over the study period; a further 24 per cent moved to a lower income quintile position and 24 per cent moved to a higher one. In this section we identify the factors associated with these positional income changes over the study period.

3.4.1 Number of Economically Active Members

The relationship between change in relative income status and number of economically active household members is examined in Table 3.7. This table classifies households according to Ca) their number of economically active members in both phases of the survey and Cb) change in the household's relative position in the income distribution over the study period. This is defined in terms of staying in the same income quintile, rising or falling. Results are presented only for cells containing more than 20 cases. Even with this caveat in mind the reader should once again note the relatively small number of cases in certain cells.

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trend is clearly apparent among- households which lost economically active members over the period in question.

Table 3.7: Change in Household Equivalent Income Quintile Position, Classified by Changes in the Number of Economically Active Members of the Household in Phase 1 and 2

Econ Active Members in Phase 1	Change in Income Quintile Phase 1/Phase 2	Number of Economically Active Household Members in Phase 2		
		None	One	Two+
		Per Cent		
None	Fall	18.1	0.0	*
	Same	59.5	36.4	*
	Rise	22.4	63.6	*
	Total	100.0	100.0	*
	(N)	(251)	(23)	(4)
One	Fall	41.1	27.3	5.3
	Same	51.6	45.0	41.0
	Rise	7.3	27.7	53.7
	Total	100.0	100.0	100.0
	(N)	(45)	(195)	(46)
Two+	Fall	*	42.8	27.7
	Same	*	46.7	59.3
	Rise	*	10.6	17.9
	Total	*	100.0	100.0
	(N)	(10)	(46)	(147)

Equivalence scale: household head 1.0; other adult 0.7; child 0.5

3.4.2 Employment Status of Household Head

The relationship between changes in employment status of household head and relative position in the income distribution is explored in Table 3.8. The data suggest that a change in the employment status of household head from employment to unemployment is largely

Income Mobility

associated with a deterioration in relative income position. We can see that 48 per cent of households which were headed by someone who was in employment in phase 1 but which were headed by someone who was unemployed in phase 2 experienced a deterioration in income quintile position. The remaining 52 per cent of such households remained in the same quintile position over the study period.

Table 3.8: Change in Household Equivalent Income Quintile Position, Classified by Changes in the Labour Force Status of Household Head in Phases 1 and 2 (1)

Employment Status of HoH Phase 1	Income Quintile Ph1 /Ph 2	Employment Status of Head of Household, Phase 2		
		Employed	Unemployed	Other(2)
		Per cent		
Employed	Fall	23.2	47.8	40.7
	Same	49.3	52.2	46.5
	Rise	27.5	0.0	12.8
	Total	100.0	100.0	100.1
	(N)	(354)	(23)	(26)
Unemployed	Fall	13.1	18.3	*
	Same	32.7	69.2	*
	Rise	54.2	12.5	*
	Total	100.0	100.0	*
	(N)	(26)	(66)	(4)
Other(1)	Fall	*	*	22.6
	Same	*	*	53.9
	Rise	*	*	23.4
	Total	*	*	100.0
	(N)	(0)	(3)	(265)

(1)Equivalence Scale: head of household 1.0, other adult 0.7; child(ren) 0.5

(2)Other includes, unable to work due to permanent illness or disability; retired; engaged in home duties; in full-time education and 'other' status!

trend is clearly apparent among households which lost economically active members over the period in question.

Table 3.7: Change in Household Equivalent Income Quintile Position, Classified by Changes in the Number of Economically Active Members of the Household in Phase 1 and 2

Household in Phase 1 and 2				
Econ Active Members in Phase 1	Change in Income Quintile Phase 1/Phase 2	Number of Economically Active Household Members in Phase 2		
		None	One	Two+
		PerCent		
None	Fall	18.1	0.0	*
	Same	59.5	36.4	*
	Rise	22.4	63.6	*
	Total	100.0	100.0	*
	(N)	(251)	(23)	(4)
One	Fall	41.1	27.3	5.3
	Same	51.6	45.0	41.0
	Rise	7.3	27.7	53.7
	Total,	100.0	100.0	100.0
	(N)	(45)	(195)	(46)
Two+	Fall	*	42.8	27.7
	Same	*	46.7	59.3
	Rise	*	10.6	17.9
	Total	*	100.0	100.0
	(N)	(10)	(46)	(147)

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Table 3.8: Change in Household Equivalent Income Quintile Position, Classified by Changes in the Labour Force Status of Household Head in Phases 1 and 2 (I)

Employment Status of HoH Phase 1	Income Quintile Ph1 /Ph 2	Employment Status of Head of Household, Phase 2		
		Employed	Unemployed	Other(2)
		Per cent		
Employed	Fall	23.2	47.8	40.7
	Same,	49.3	52.2	46.5
	Rise	27.5	0.0	12.8
	Total	100.0	100.0	100.1
	(N)	(354)	(23)	(26)
Unemployed	Fall	13.1	18.3	*
	Same	32.7	69.2	*
	Rise	54.2	12.5	*
	Total	100.0	100.0	*
	(N)	(26)	(66)	(4)
Other ⁽²⁾	Fall		1*	22.6
	Same		1*	53.9
	Rise		1*	23.4
	Total		1*	100.0
	(N)	(0)	(3)	(265)

(I) Equivalence Scale: head of household 1.0, other adult 0.7; child(ren) 0.5
 mOther includes, unable to work due to permanent illness or disability; retired; engaged in home duties; in full-time education and 'other' status. I

The corollary of this trend is the positive relationship between a change in the employment status of household head from unemployed to employed and an improvement in the household's relative position in the income distribution. Although the numbers upon which such a trend is based are extremely small, we can see that 54 per cent of the households in question experienced an improvement in their relative income position. Approximately 33 per cent of these households stayed in the same quintile position in the income distribution and the remaining 13 per cent experienced a deterioration in quintile position.

3.5 Summary

We began this chapter by considering some of the main trends in income mobility emerging from the international panel-based literature. In general we found that over a seven-year study period in both the United States and Sweden approximately 40 per cent of the population did not change income quintile position with approximately equal proportions of the remainder moving to a higher or lower quintile. Data from the Panel Survey of Income Dynamics suggest that in the United States the single most important factor associated with changes in economic status are changes in family composition, notably marriage or marital disruption. The changes in family structure impact more substantially on women than on men. The importance of these factors for economic welfare is also highlighted in the Swedish literature. It is noteworthy that in Sweden, however, the gender differences associated with marriage and separation are not so great as in the United States.

Although changes in household composition were found to be of primary importance changes in labour force were also of relevance. These labour market events have most impact on household income where the male head of household becomes unemployed. Female unemployment (other than in situations where that household is

headed by a woman or where the woman is the sole income earner) is not found to have such a significant effect on total family income. Finally, experience in the United States would indicate that fluctuations in economic mobility were not significantly related to personal attributes, attitudes or level of motivation. Overall, therefore, the main correlates of economic mobility can be summed up by Duncan who notes:

Since the early years of the Panel Study (of *Income Dynamics*), there have been repeated attempts to gauge the relative importance of a variety of attitudes, skills and events in accounting for changes in family economic status. All ...have indicated that changes in the composition of families are sufficiently frequent and dramatic in their effects to rank first in importance (1984:18).

In the remainder of the chapter we attempted to identify the magnitude and correlates of economic mobility in Ireland. Absolute as well as relative or positional change in the income distribution was considered. In general, we found that just over 52 per cent of households experienced a real increase in income over the study period. Almost one-half of households (48 per cent) experienced a real change in income in the order of ± 15 per cent. In terms of positional change we found that 52 per cent of households did not change their income quintile position over the study period while approximately equal proportions of the remainder experienced a deterioration or an improvement in quintile position. Almost three-quarters of those who experienced a change in their relative income position did so by only one quintile.

When we examined the factors associated with household economic mobility we saw that the two variables to emerge as being of primary importance were change in the number of economically active members and change in the labour force status

of household head. The direction of this relationship conforms with expectations. This differs from the findings in the international literature which highlight the overriding importance of changes in family composition in determining changes in economic mobility. The fact is that in Ireland over the study period households were remarkably stable in terms of their structure and composition. For example, a total of 72 per cent of households experienced no change in composition while a further 12 per cent experienced a compositional change which involved only a new arrival (mostly in the form of the birth of a child). A total of 13 per cent of households experienced only a departure, while the remaining 3 per cent experienced a combination of departures and arrivals. Most of these departures did not involve household heads or principal income earners and as such did not result in a systematic deterioration in the economic status of their original household". Overall, it would seem that, in general terms, household economic well-being and mobility in Ireland is determined by the number of economically active members and changes in the labour force status of household head rather than by household composition change *per se* (even though changes in the number of economically active will be related to changes in composition). This does not imply that specific circumstances, such as marital desertion by the main income earner in a household, do not result in substantial hardship for the households involved. However, because of differences in labour market conditions and the incidence of marital breakdown between Ireland and, for example, the United States, it would seem that, in aggregate, the economic circumstances of Irish households are more strongly influenced by changes in labour force status of household head or changes in the number of economically active

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members. This is not to say, however, that the available evidence suggests that the probability of a deterioration in the economic circumstances of the household as a consequence of marital breakdown is any less in Ireland than in, for example, the United States.¹²

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CHAPTER 4**Poverty Dynamics**

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The corollary of this trend is the positive relationship between a change in the employment status of household head from unemployed to employed and an improvement in the household's relative position in the income distribution. Although the numbers upon which such a trend is based are extremely small, we can see that 54 per cent of the households in question experienced an improvement in their relative income position. Approximately 33 per cent of these households stayed in the same quintile position in the income distribution and the remaining 13 per cent experienced a deterioration in quintile position.

3.5 summary

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Although changes in household composition were found to be of primary importance changes in labour force were also of relevance. These labour market events have most impact on household income where the male head of household becomes unemployed. Female unemployment (other than in situations where that household is

headed by a woman or where the woman is the sole income earner) is not found to have such a significant effect on total family income. Finally, experience in the United States would indicate that fluctuations in economic mobility were not significantly related to personal attributes, attitudes or level of motivation. Overall, therefore, the main correlates of economic mobility can be summed up by Duncan who notes:

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In the remainder of the chapter we attempted to identify the magnitude and correlates of economic mobility in Ireland. Absolute as well as relative or positional change in the income distribution was considered. In general, we found that just over 52 per cent of households experienced a real increase in income over the study period. Almost one-half of households (48 per cent) experienced a real change in income in the order of ± 15 per cent. In terms of positional change we found that 52 per cent of households did not change their income quintile position over the study period while approximately equal proportions of the remainder experienced a deterioration or an improvement in quintile position. Almost three-quarters of those who experienced a change in their relative income position did so by only one quintile.

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of household head. The direction of this relationship conforms with expectations. This differs from the findings in the international literature which highlight the overriding importance of changes in family composition in determining changes in economic mobility. The fact is that in Ireland over the study period households were remarkably stable in terms of their structure and composition. For example, a total of 72 per cent of households experienced no change in composition while a further 12 per cent experienced a compositional change which involved only a new arrival (mostly in the form of the birth of a child). A total of 13 per cent of households experienced only a departure, while the remaining 3 per cent experienced a combination of departures and arrivals. Most of these departures did not involve household heads or principal income earners and as such did not result in a systematic deterioration in the economic status of their original household". Overall, it would seem that, in general terms, household economic well-being and mobility in Ireland is determined by the number of economically active members and changes in the labour force status of household head rather than by household composition change *per se* (even though changes in the number of economically active will be related to changes in composition). This does not imply that specific circumstances, such as marital desertion by the main income earner in a household, do not result in substantial hardship for the households involved. However, because of differences in labour market conditions and the incidence of marital breakdown between Ireland and, for example, the United States, it would seem that, in aggregate, the economic circumstances of Irish households are more strongly influenced by changes in labour force status of household head or changes in the number of economically active

It should be noted in making comparisons with the evidence from the international literature that the unit of analysis in the Irish study is the household. The unit of analysis on the US and Swedish studies was the individual to whom household level details such as income were assigned. These differences in the unit of analysis do cause some difficulties in making direct comparison with the Irish experience.

members. This is not to say, however, that the available evidence suggests that the probability of a deterioration in the economic circumstances of the household as a consequence of marital breakdown is any less in Ireland than in, for example, the United States.¹²

¹²The micro analysis of the needs and circumstances of such minority groups cannot be adequately pursued in the current study in view of sample size.

CHAPTER 4

Poverty Dynamics

4. Introduction

In the previous chapter we discussed the extent of income mobility and related events over the period 1987-1989. In this chapter we turn to the question of poverty dynamics *per se*. The chapter is divided into four subsequent sections.

First, we consider the main findings to emerge from the international panel-based literature on poverty dynamics. Secondly, using the available Irish data we discuss changes in the household's subjective perception of its ability to make ends meet and in its financial circumstances over the study period. Thirdly, we look at the incidence and extent of poverty transitions in Ireland and identify some of the factors related to those transitions. Finally, we present a summary of our main observations.

4.1 Poverty Dynamics: The International Experience

We pointed out in Chapter 1 that the study of changes in poverty status is still in its infancy in Europe. Under such circumstances we must look, as in Chapter 3, to the North American literature for an overview of research themes and results. We also noted in earlier chapters that there is a substantial overlap as between one aspect of poverty dynamics and another. Although none constitutes a discrete area of study we can, for convenience, identify three interrelated perspectives on research into poverty dynamics as follows: (i) the extent of poverty transitions and poverty durations; (ii) the events associated with poverty transitions and (iii) a comparative analysis of the characteristics of those who escape from poverty with those who do not. It is clear that none of these forms an entirely discrete or self-contained area of study. For example, there is a substantial overlap between the events associated with poverty dynamics and a comparison of the characteristics of those who escape from poverty with those who do not. Although this working typology of the issues involved is not as satisfactory as one might hope for it does serve as a useful structure for our initial discussion of the international literature.

4.1.1 Poverty Transitions and Duration of Poverty Spells

Annual Transition Rates

Given that there is no definitive way in which to measure poverty itself it is hardly surprising that there is equal difficulty in measuring poverty transitions. One approach is to examine the percentage of the population which is poor in one year and which remains poor in the next. If poverty were an entirely structural phenomenon one would expect that 100 per cent of those who were in poverty in each year would still be in poverty in the following year. On the other hand, if poverty were entirely cyclical in nature (with a 12 months cycle) then none of those in poverty in one year would be in poverty in the next. In other words, the annual escape rate would be 100 per cent. The reality of the situation is, of course, likely to be somewhere between these two extremes.

Transitions into and out of poverty in the US over the period 1969-1978 have been estimated on an adjacent-year basis by Hill (1981) and Duncan (1984).¹ Overall, both report that the annual percentage of persons who remained poor from one year to the next ranged from a low of 54 per cent to a high of 65 per cent. In other words, throughout the 1970s between 35 and 46 per cent of those who were poor in any one year had escaped from poverty by the next. In a more recent study, Berghman and Dirven (1991) examine annual poverty escapes in the Netherlands in the late 1980s using panel data covering the period 1986-1988. Using a legally defined absolute poverty line they found that 64 per cent of those who were poor in 1986 had escaped from poverty one year later. The year-on-year

¹ Much of the work on income and poverty dynamics in the United States is based on annual household or family income as compared with, for example, current income as used in the Irish study. The implications of using current as compared to annual income in measuring poverty levels in an Irish context are considered in Chapter 4 of Nolan *et al* (1994).

escape rate for those poor in 1987 was 61 per cent. These single-year escape rates for the Netherlands are clearly considerably higher than the 1970s figures for the United States.

A further important source of trends in poverty transitions is the US Census Bureau's Survey of Income and Program Participation (SIPP). The Census Bureau does not only classify households by whether or not they are above or below the poverty line. It also classifies them in terms of distance from the line. On this basis the Bureau uses a threefold classification of "poor", "near poor" and "non-poor". The "poor" are those who lie below the poverty line; the "near poor" are found in the range 100 to 124 per cent of the poverty threshold and the "non-poor" comprise the residual category who are at a point above 125 per cent of the threshold. The "poor" and "near-poor" constitute those who are economically vulnerable. In its study of changes in poverty status over the period 1984-1985 the Census Bureau notes that 25 per cent of those who were poor in 1984 had graduated out of poverty one year later. A total of 44 per cent of those who escaped from poverty over the period ended in the "near poor" category, meaning that although they had technically escaped from poverty they were still economically vulnerable. The remaining 56 per cent of those who escaped ended in the "non-poor" or economically secure group. In effect, this meant that just under 14 per cent of those who were in poverty in 1984, as measured by the SIPP, were in an economically secure position one year later.

To get a full picture of poverty dynamics one needs to look not only at escape rates but also at the extent of *inflows* into poverty as incidence over time is clearly a function of the net balance between inflows and outflows. Duncan (1984:45) notes that over the period 1974-1978 in the US only 3-4 per cent of those who were not in poverty in one year were in poverty in the following year. Berghman

and Dirven (1991) suggest that comparable figures for Holland were 5 per cent in 1986-1987 and 4 per cent in 1987-1988.

Poverty Duration

Consideration of annual poverty transition rates logically leads one to an examination of poverty duration. The study of poverty durations is extremely problematic. As a basic requirement one obviously needs a high-quality longitudinal data series on income and other household characteristics. For this reason nearly all of the international literature on poverty *durations* (as compared with year-to-year transitions) draws very heavily from the US Panel Study of Income Dynamics. Even with a good quality longitudinal dataset like the PSID many methodological and theoretical problems remain. The most important of these is so-called right and left cohort truncation or censoring. In other words, if we are studying poverty durations over a specified time period we will find that many spells will have begun before the study period while others will still be "in progress" after the study period has ended. Only the Panel Study of Income Dynamics offers a sufficiently long data series as to capture a substantial number of poverty spells which would have begun and ended over a reasonably long period of time.

Notwithstanding the technical and data problems, several efforts have been made to study poverty durations. Bane and Ellwood (1986) note that three main methodological approaches to poverty durations can be identified as follows: the econometric approach, the hazard function approach and the average duration approach.

The econometric approach is adopted by, for example, Lillard and Willis (1978). In their paper the authors take the log of male earnings as the dependent variable, using 1967-1973 data from the US PSID. Their independent variables include standard socio-demographic characteristics such as years of schooling, years in the workforce, race,

etc.² From the estimated earnings function it is possible to derive both poverty probability distributions and durations. The main disadvantage of this approach is that the models usually concentrate on the earnings of one type of individual, notably males or household heads. In so doing they effectively ignore the income of other family/household members. Another major disadvantage of this approach is that most models do not take household or family structure into account. When one focuses on household income, one runs into difficulties if household composition changes over the study period. Although simultaneous equation models of income from all individuals within the household could incorporate changes in household structure, such models present theoretical, operational and interpretational difficulties.

The second approach to the analysis of poverty durations is the calculation of exit probabilities or hazard rates. This is the approach adopted by Hill (1981) and Bane and Ellwood (1986). Both studies use PSID data, the former over the ten-year period from 1969-1978, the latter over the 12 year period from 1970-1982. The Bane and Ellwood approach involves the initial calculation of exit probabilities for various spell lengths. They then use these probabilities to derive three separate distributions each of which gives its own important but different perspective on poverty durations. The first of these is the distribution of persons just beginning a poverty spell by spell length. In other words, in respect of those just beginning a spell in poverty it gives the percentage for whom that spell will be of one year's duration, two years' duration etc, up to nine or more years' duration. The second is the distribution of completed spell lengths for those who were ever poor. This is analogous to the distribution of poverty-years classified by spell length. The third is the distribution of uncompleted spell lengths at a point in time. In other words, it is the

² The dynamic element of their model is subsumed in the error structure which allows for permanent and transitory elements (see Lillard and Willis, 1978:1008).

distribution which one would get if one carried out a cross-sectional survey and asked people who were then in poverty how long they had spent in poverty up to the time of the survey. These spells, by definition, are incomplete. Using these three distributions the authors address the issue of poverty duration from a number of different perspectives.

They note that an assessment of poverty duration will depend on whether or not one is interested in the group who ever enter poverty or in the group who are in poverty at a given point in time. To clarify their point they use hospital admissions as an analogy. The authors note that the vast majority of those who enter hospital in any year will only require short-term hospitalisation. None the less there is always a small proportion of admissions (the chronically ill) who will be long-stay patients. We will find that the percentage of hospital admissions who are long-stay patients is small. Nevertheless we would find that the percentage of total days in hospitals accounted for by long stay patients over a given time period is high. Using their derived distributions Bane and Ellwood find that the majority of poverty spells are short - 45 per cent are of one year's duration and 70 per cent are over within three years. A total of 12 per cent last more than 9 years. This notwithstanding, however, if one concentrates on those persons who are poor at a given point one finds that as many as 51 per cent of those identified as being poor in a cross-sectional survey are experiencing a poverty spell of ten or more years.; Using the hospital admissions analogy, this is comparable to reporting the prospective completed period of hospitalisation for all those in the hospital at the time of interview, rather than simply for those who have been admitted (ie those who have begun a spell of hospitalisation (Bane and Ellwood, 1986:7-13)). The importance of the Bane and Ellwood study is the extent to which it focuses attention on the dual nature of poverty duration distributions. On the one hand, the majority of persons who are ever poor experience only short periods of poverty.

On the other, the vast bulk of poor persons and of person-years of poverty at any given point in time will be accounted for by those in long-term structural poverty.

The third approach to the measurement of poverty durations involves nothing more complicated than tables detailing the percentage of the population which is in poverty for a specified number of years over a given time period. The principal disadvantage of the approach is spell truncation and right and left censoring of the data as mentioned above.

Using this third approach Duncan (1984), for example, finds that 24 per cent of the US population were poor in one or more years over the period 1969-1978; 5 per cent were poor in five or more of the years in question and 3 per cent were poor in eight or more years. A total of just under 1 per cent of the US population were poor in all ten of the years under study. In general, Duncan found that there was little evidence to suggest any substantial change in the relative levels of long- and short-term poverty throughout the 1970s. When he split the ten-year period into two five-year periods (1969-1973 and 1974-1978) he noted that:

... a comparison of the first five-year period with the second shows that almost equal fractions of the population were poor at least one of the five years (7.5 per cent in the first period, 16.6 per cent in the second). Of these individuals, the fraction poor for one year only or for all five years was virtually identical between the two periods. Finally, there was no trend in the year-to-year poverty turnover rates. Thus neither the extent of turnover nor the incidence of temporary or persistent poverty appears to have changed within the decade (1984:43).

This constancy in long- and short-term poverty levels is all the more surprising in view of the relatively more sluggish conditions in the US domestic economy in the latter period as compared with the former.

4.1.2 Events Associated with Poverty Transitions

There is a relative paucity of published research on the events which are associated with a change in poverty status *per se*. The events which trigger a change in poverty status are assumed to be essentially similar to those which underlie changes in income status and which were discussed in the previous chapter. The essential difference between the two is that poverty-related events change the position of the individual or household relative to the poverty line.

Transitions into Poverty

Bane and Ellwood (1986) examine the relationship between the onset of a poverty spell and various events such as changes in income and household composition. Using the individual as the unit of analysis they found that for 49 per cent of all those who experienced a spell in poverty over the period 1970-1982 that spell was preceded by a fall in the earnings of one or more household members. A fall in the head of household's income was the single largest cause of movement into poverty. For 38 per cent of persons the slide into poverty was preceded by a fall in the labour income of the household head. For 4 per cent of persons the movement into poverty was preceded by a fall in the earnings of the wife and for 8 per cent of persons by a fall in the earned income of other household members. In aggregate, therefore, these figures suggest that just under 50 per cent of poverty spells were preceded by a fall in the earnings of household members. Although the fall in the earnings of the household head was the single most important factor associated with the onset of a fall into poverty, its effect varied greatly as between one subgroup and another. For example, in 58 per cent of male-headed households the poverty spell was preceded by a fall in the earnings of the household head. In contrast, the comparable figure for female-headed households was only 14 per cent.

In addition to the changes in earned income the onset of a poverty spell was also associated with a fall in unearned income, mostly

transfers through the welfare system. Bane and Ellwood estimate that a total of 8 per cent of poverty spells are preceded by such a fall in unearned income. The remainder of poverty spells were preceded by non-income related events, primarily changes in family composition. The most common of these are a child leaving the parental home to set up his/her own household to become either an independent head of household or a wife. This type of household generation was associated with the onset of 15 per cent of poverty spells.³ Other important factors associated with a fall into poverty involve a child being born into a low income household (9 per cent of spells), marital disruption (6 per cent).

The overriding finding from the Bane and Ellwood study, however, is the variety and heterogeneity of events related to the onset of a poverty spell. The most clearly identified differences are between male and female-headed households and between those households with, and those without, children. The authors note that the only systematic pattern to emerge from this heterogeneity is that:

...male-headed families most commonly have suffered a fall in earnings ... Female-headed poverty typically begins when the female-headed family is formed, either through separation/divorce or when an unmarried woman has a child. In poverty, patterns for children not surprisingly mirror those of their families, though a sizeable fraction are born into poverty. Adults without children are an extremely diverse group. Some are clearly "getting started" after leaving home. Others suffer earnings falls. Still others are probably older (1986:17).

Transitions Out of Poverty

What of events associated with the ending of a poverty spell? Bane and Ellwood note that an increase in the earnings of the household

³ This represents a "start-up" situation among the newly generated households. The poverty is experienced by those who leave the "original" or parental household to set up a new, separate and independent household.

head preceded the ending of just over 50 per cent of poverty spells. The impact of an increase in the earnings of a wife or other household member was also important, accounting for an ending to 23 per cent of poverty spells.

The remaining 25 per cent of poverty spells ended as a result of increased transfers (14 per cent)⁴ and marriage (10 per cent). Marriage was certainly an important route out of poverty for women who were household heads, especially those with children. A total of 26 per cent of female heads with children escaped from poverty by this route. Having said this, however, it should be noted that this was not the only, nor indeed the most important way out of poverty for women. Bane and Ellwood found, for example, that 33 per cent of female heads with children escaped from poverty as a result of a change in their employment/income status.

Berghman and Dirven (1991) address the issue of poverty related events in Holland over the period 1986-1988 using multiple regression techniques. They carry out separate analyses on four subgroups of the population formed by the combination of marital status and gender ie (i) married men; (ii) married women; (iii) unmarried men and (iv) unmarried women. Their dependent variable in each of the four separate analyses is described as "insecurity of subsistence" in 1987. Their independent variables include changes in employment status, family composition and number of children living at home. In their analysis of married men the authors find that changes in employment status has a substantial and significant effect on insecurity of subsistence. The direction of the relationship is as one would expect *a priori*, ie the movement from employment to unemployment

⁴ Note that Bane and Ellwood were dealing with post-transfer poverty throughout. One should not, therefore, try to infer anything from the evidence presented here on the role of transfers in keeping out of poverty those who would fall below the poverty line if measured on a pre-transfer basis.

increased the probability of a married man being in poverty, a status change from unemployment to employment had the opposite effect. Employment status of wife showed the same trend but was not significant. One reason for this is presumably that the wages of married women are less than those of married men. Neither changes in marital status (marital disruption or widowhood) nor changes in the number of children living at home significantly affected the probability of changing the poverty status of married men.

For married women Berghman and Dirven found that changes in the employment status of their husband had a more substantial and significant impact on their poverty status, than did changes in their own employment status. Changes in the marital status of married women had a significant effect on their poverty status. This contrasts with the effect of the marital status variable for married men and implies that the financial consequences of a loss of a spouse are more substantial, as well as being statistically more significant, for women than men. even when changes in the female's employment are taken into account. As was the case for married men the probability of a change in the poverty status of married women was not significantly affected by a change in the number of children living at home.

The Dutch research suggests that changes in employment status are significant and substantial for unmarried men whereas neither marital status change nor change in the number of children living at home have any significant effect on the probability of a change in their poverty status. The trends for unmarried women are largely the same as those for unmarried men except that a change in marital status was substantial in determining changes in poverty status. By getting married, a woman who was in poverty in 1986 significantly increased her probability of escape over the study period (1986-1988).

One aspect of the events associated with the perpetuation or termination of a spell of poverty is the incidence of previous periods in poverty. We saw above that PSID data suggest that over the 1970s between 50 and 65 per cent of those poor in any year were also poor in the following year. In contrast, only 3-4 per cent of the new poor in any year were poor in the previous year. Does this imply that prior poverty spells *per se* to some extent increase the chances of experiencing subsequent spells?

Both Hill (1981) and Duncan (1984) discuss the extent to which being in poverty in a given period is related to previous experience of poverty. Hill, for example, considers the relative importance of what she terms "state dependence" as compared to "heterogeneity". State dependence is defined as the effect which poverty *per se* in one year has on being poor in subsequent years. In other words it refers to the link between prior and subsequent poverty spells which is invariant across individuals. In contrast to state dependency effects, Hill also identifies what she calls "heterogeneity effects". These relate to the specific differences and characteristics of each individual which may in themselves increase the probability of the individual experiencing subsequent periods of poverty. For example, an individual may find that characteristics such as a low level of educational attainment or partial disability may underlie an association between prior and subsequent poverty experience. Using a technique which allows her to control for the heterogeneity effects Hill tests the importance of state dependence on subsequent experience of poverty spell. She finds that although state dependence has a statistically significant effect on poverty experience it is relatively small when compared to the heterogeneity effect of individual-specific characteristics. The linkage between the heterogeneity of individuals' characteristics and poverty experience in itself underlines the complexity of policy formulation in this area.

4.1.3 Characteristics of Those in Long- and Short-Term Poverty

Having considered issues involved in the measurement and incidence of long- and short-term poverty rates as well as the duration of spells and related events, we now turn to consider whether or not one can identify differences in the characteristics of those in long and short-term poverty. In discussing these characteristics one clearly recognises that long- and short-term poverty is defined on a largely arbitrary basis. As with many of the other issues in this area, most of the published research relates to the United States.

Characteristics of the Temporarily Poor

Hill (1981) and Duncan (1984) present a comparative analysis, based on the PSID data, of the characteristics of the persistent and temporarily poor population over the period 1969-1978. Duncan, for example, notes that the demographic characteristics of the temporarily poor (defined by him as those in poverty in one or two years over the period 1969-1978) are reasonably consistent with the population as a whole. The only major exceptions to this were in respect of households headed by either a non-elderly woman, a black person or by someone who was disabled. For example, he found that over the period in question a total of 19 per cent of the US population lived in families which were headed by a non-elderly woman, whereas 28 per cent of all those who were temporarily poor lived in households of this type. Similarly, 19 per cent of the temporarily poor came from families which were headed by a black person, compared with 12 per cent of the population as a whole. Finally, 17 per cent of temporarily poor individuals were from families headed by a disabled person, compared with 11 per cent of the total population.

Characteristics of the Persistently Poor

In contrast to the similarities between the temporarily poor and the total population, the demographic profile of the persistently poor (defined by Duncan (1984) as being poor for eight or more years over the period 1969-1978) is strikingly different from that of the overall population. The

story told by Duncan's figures suggests that one can identify a number of important dimensions to persistent poverty. The first of these is race. Duncan found that although only 12 per cent of the entire US population lived in families headed by a black person in 1978, a total of 62 per cent of all individuals who were persistently poor in that year were black. A second dimension of persistent poverty appears to be related to gender. For example, in 1978 a total of 19 per cent of the US population lived in households headed by a woman. This compares with a total of 61 per cent of the persistently poor. A third dimension of persistent poverty is the interaction of gender and race. Although only 4 per cent of the total US population lived in households which were headed by a black woman, as many as 31 per cent of the persistently poor population lived in households of this type. Comparable figures for households headed by a black man are 6 per cent and 20 per cent respectively. This implies that the probability of experiencing persistent poverty in US families headed by a black woman is approximately eight times the probability for the population as a whole, while the probability of persistent poverty among households headed by a black man is three times the national average. The figures for households headed by black men can be further contextualised by the comparable figures for households headed by white men. In 1978 a total of 65 per cent of the US population lived in households headed by a white man. Only 4 per cent of the persistently poor lived in such households. A fourth dimension of persistent poverty is the interaction of age and gender. A total of 5 per cent of the US population lived in households headed by an elderly woman in 1978 whereas 18 per cent of the persistently poor lived in such households in that year. Comparable figures for elderly male-headed households were 8 per cent of the national population and 15 per cent for the persistently poor population. A fifth dimension of persistent poverty identified by Duncan is geographical location. He found an over-concentration of the *persistently poor* in small towns (of up to 10,000 persons) or rural areas, although it should be noted that the one-year poor did seem to be concentrated to a greater degree in larger

urban centres. Overall, in terms of geographical location, southern and rural poverty are more persistent in nature than is urban poverty. As noted by the author:

These findings do not support Lewis's (1968) emphasis on northern urban blacks nor Auletta's (1982) depiction of the persistently poor as an urban underclass (1984:51).

Having examined a range of issues and perspectives on poverty dynamics from the literature we now attempt to relate some of these, where feasible, to the available Irish data on changes in poverty status over the period 1987-1989.

4.2 Subjective Assessment of Financial Circumstances:

The Irish Experience

As a preliminary to examining objectively measured changes in household poverty status we can look at the household's subjective assessment of its financial position by examining its perception of (O) its own ability to make ends meet and (H) changes in its financial situation over the study period. Table 4.1 presents details of the head of households' subjective assessment at both rounds of interviewing of the household's ability to make ends meet. The table is based on a direct question asked of the household head and is thus entirely conditioned by his/her subjective assessment of an acceptable standard of living. From this we can see that in phase 1 almost 52 per cent of households said they were experiencing "great" or "some" difficulty in making ends meet. The comparable figure in phase 2 was 46 per cent. From columns three and four of the table we can see, as one would expect, that there is a strong relationship between equivalent income and ability to make ends meet. The significance of the figures in the latter two columns of the tables is the extent to which they validate the household's subjective assessment of its financial well-being. This gives us confidence in presenting a cross-classification of the household's perception of its ability to make ends meet at both rounds of interviewing,

In so doing we can get a preliminary measure of the extent to which financial difficulties are a long- or short-term phenomenon.

Table 4.1: Non-Farm Households Classified by Subjective Assessment of their Ability to Make Ends Meet in Phases 1 and 2 of the Survey and Average Real Equivalent Income (nominal terms).

	Phase 1	Phase 2	Phase 1	Phase 2
	Per Cent		Ir£	
With great difficulty	24.8	20.8	53.64	54.26
With some difficulty	26.8	24.7	74.74	67.69
With a little difficulty	22.1	22.2	81.40	84.39
Fairly easily/easily/v easily	26.3	32.3	119.19	120.53
Total (N)	100.0 (749)	100.0 (760)	82.68 (749)	85.65 (760)

Equivalence scale used: head of household 1.0; other adult 0.7; child 0.5.

Table 4.2 presents a cross-classification of households' perceived ability to make ends meet at both rounds of interviewing. In this table we have combined the "great" and "some difficulty" categories so as to avoid possible confusion introduced by the relatively semantic difference between the two. From the table we can see, for example, that 66 per cent of those who were experiencing "great" or "some" difficulties in phase 1 were experiencing a similar degree of difficulty in phase 2. A further 19 per cent of this group seems to have experienced a slight improvement, while 15 per cent seem to have experienced a substantial improvement over the study period. At the other extreme we can see that just over two-thirds of those who were able to make ends meet fairly easily/easily/very easily in phase 1 were still able to do so by phase 2;

⁵ These three categories had to be combined due to the small number of reweighted Cises in each.

In the second round of interviewing the household head was asked to say how the household's financial situation had changed over the preceding 18 months. Table 4.3 provides a classification of households in terms of their ability to make ends meet in phase 1 and changes in their financial situation between phases 1 and 2. From this we can see that those who were experiencing great/some difficulty in making ends meet in 1987 (at the first round of interviewing) had an above average level of deterioration in their financial situation over the study period. For example, 15 per cent of households in this group said that their financial situation had become "much worse" while a further 32 per cent said that it has become "somewhat worse" over the period in question. This means that almost 47 per cent of households which were experiencing great or some difficulty in making ends meet at the first phase of interviewing experienced a deterioration in their financial situation between 1987 and 1989. The comparable figure for those experiencing "a little difficulty" in phase 1 is 38 per cent and just over 23 per cent for those who said they were able to make ends meet "fairly easily/easily/very easily" in 1987.

Table 4.2: Households Classified by their Perceived Ability to Make Ends Meet in Phases 1 and 2

		Phase 2			Total	(N)
Phase 1	Great/Some Difficulty	A Little Difficulty	Fairly Easily/ EasilyjVEasily			
Per Cent						
Great/some difficulty	66.3	18.7	15.0	100.0	(380)	
A little difficulty	36.2	33.5	30.3	100.0	(165)	
Fairly easily/easily/ very easily	12.7	20.8	66.5	100.0	(197)	

The importance of these tables on the household's subjective assessment of its financial well-being and changes therein is the

extent to which they suggest that there is a degree of change in financial well-being over the short term. The data suggest, for example, that 14 per cent of households which were experiencing major difficulty at the first interview experienced a fairly significant improvement in their financial situation over the study period. The data further suggest that about 13 per cent of those who were able to make ends meet with some degree of ease in 1987 were experiencing great/some difficulty by 1989 (Table 4.2). These trends clearly suggest changes in the financial circumstances of households over time (or at least in the head of household's perception thereof). The next section deals with a more objective assessment of such change.

Table 4.3: Households Classified by their Perceived Ability to Make Ends Meet in Phase 1 and Perceived Change in the Household's Financial Situation Between Phases 1 and 2

Make Ends Meet Phase 1	Changes in Financial Situation Between Phases 1 and 2				Total	(N)
	Much/Somewhat Better	Same	Somewhat Worse	Much Worse		
	Per Cent					
Great/some difficulty	14.1	39.3	31.8			
A little difficulty	20.5	41.6	32.5			
Fairly easily	24.4	52.3	20.8			
/easily/very easily						
Total	18.2	43.2	29.0			

4.3 Poverty Incidence and Dynamics: The Irish Experience

There are a number of ways in which one can measure the incidence of income poverty.⁶ At least five possible approaches can be identified as follows: (i) the setting of poverty lines by politicians; (ii) asking a representative sample of the population what it considers to be the minimum level of income necessary for a range of different household types; (iii) asking a representative sample of the population what it considers to be the minimum level of income necessary to support their own household; (iv) the setting of an "objectively" defined absolute poverty line, such as the Orshansky line used in the United States; (v) the use of relative poverty lines. This last approach is the one which we adopt in this section of the report. It involves determining the poverty threshold with reference to the equivalised income distribution. The line is usually drawn at the 40%, 50% or 60% point of the mean or median equivalent income distribution. For example, the 400/0 poverty line is drawn at a level which represents 40 per cent of the mean or median income among the population. It is largely a matter of choice as to whether or not one decides to take the mean or median point as the poverty benchmark. It should be noted, however, that the median of the income distribution is below the mean. This implies that a poverty line based on median rather than mean income will result in a smaller proportion of the population being classified as "in poverty". The choice of *where* to strike the line in the income distribution (ie at the 400/0, 500/0, 60% level) is essentially a subjective one. In this chapter we adopt the mean income as our basic benchmark and present details on the 400/0, 500/0 and 600/0 levels.

4.3.1 Poverty Incidence, Phases 1 and 2

The drawing of a mean relative income poverty line is a fairly straightforward matter. As noted above, one simply strikes the line

⁶ For a review of conceptual and definitional issues associated with determining the poverty line see, for example, Goedhart *et al* (1977); Piachaud (1987); Van Praag *et al* (1982); Kapteyn *et al* (1988); Callan *et al* (1988); Ruggles (1991).

at the 400/0, 500/0 or 60% level of mean equivalised income as appropriate. In phase 2 of the survey the mean equivalised income for all households was IR£87.26, IR£94.96 and IR£93.82 using equivalence scales A, B, and C respectively.⁷ In view of the size and structure of the sample used in phase 2 (as discussed in full in Chapter 2) a second approach to determining the mean poverty line was considered. This involved adjusting the phase 1 line (based on the full phase 1 sample of over 3,300 households) according to real trends in disposable income available from national accounts figures. By adopting this second estimation technique one could maintain a relative income poverty threshold while avoiding issues of sampling variance associated with the relatively small sample used in phase 2 of the survey. When this second approach was used the mean equivalised income levels at scales A, B, and C were IR£87.90, IR£95.59 and IR£94.35 respectively. When we compare these figures with the mean levels based on the phase 2 survey data in isolation we can see that there is only minimal differences between the mean figures (and associated poverty thresholds) derived from the two estimating techniques. For example, using the phase 2 data in isolation locates the 400/0 poverty line (based on equivalence scale A) at IR£34.90. Using the second approach based on the adjusted phase 1 line the 400/0 threshold is located at IR£35.16. This represents a difference of only IR£0.26 in the location of the line based on the two estimation techniques. Comparable differences for the 50% and 60% levels are IR£0.32 and IR£0.38 respectively. In the remainder of this chapter we present estimates based on the lines derived from the second estimating technique (ie the adjusted phase 1 lines).⁸

- Equivalence weights:

Scale A - Head of household 1.0; Other adult 0.7; Child 0.5.

Scale B - Head of household 1.0; Other adult 0.6; Child 0.4.

Scale C - Head of household 1.0; Other adult 0.66; Child 0.33.

⁸ It should be noted that the figures presented in the tables in the chapter are the same for both estimating techniques.

Table 4.4 presents details on the incidence of poverty among non-farm households at both phases of interview as well as the percentage of persons below each of the lines. There are clearly differences in rates depending on the scale and level of the line chosen. The differences, however, are much greater as between one line and another, for obvious reasons, rather than between scales for any given level of poverty line. It is clear that the equivalence scale does have a marginally greater impact at the 40% line than at either of the other two.

Table 4.4: Poverty Incidence Among Non-Farm Households and Percentage of Persons in Poverty in Phases 1 and 2

Rel. Line	Households						Persons					
	Phase 1			Phase 2			Phase 1			Phase 2		
	Scale A	Scale B %	Scale C	Scale A	Scale B %	Scale C	Scale A	Scale B %	Scale C	Scale A	Scale B %	Scale C
40%	6.5	5.1	4.0	6.5	4.5	3.6	9.1	6.4	4.6	10.3	6.8	4.5
50%	15.3	15.0	14.1	15.3	15.4	14.8	19.5	17.2	16.2	20.4	19.5	16.2
60%	25.1	26.6	25.9	27.2	28.6	27.7	28.6	28.6	26.5	31.3	31.3	27.2
	(n=767)			(n=767)			(n=767)			(n=767)		

Equivalence weights: Scale A - head of household 1.0; other adult 0.7; child 0.5.
 Scale B - head of household 1.0; other adult 0.6; child 0.04.
 Scale C - head of household 1.0; other adult 0.66; child 0.33.

From the table we can see, for example, that just over 6 per cent of non-farm households were in poverty at the 40% relative line using equivalence scale A at both rounds of interview. In terms of individuals the table suggests that approximately 10 per cent of persons were in poor households in both years at the 40% line (using scale A), rising to approximately 30 per cent at the 60% line. Overall, therefore, the data suggest that there is remarkable

stability in the overall level of poverty at each line in phases 1 and 2. This is true in respect of both households and individuals. Such differences as exist can clearly be ascribed to sampling variances.⁹ This stability in poverty levels over time in itself reinforces the often held view (albeit an implicit one) that poverty is essentially a permanent or structural phenomenon. Such a view ignores the flows into and out of poverty over time and concentrates only on net change.

The figures presented in Table 4.4 provide cross-sectional "snapshots" of the poverty status of households at two points in time and say nothing of micro-level changes in the poverty status of individual households nor of the flows into and out of poverty over the period in question. It is to a consideration of these dynamic aspects of poverty that we now turn.

4.3.2 Change in Poverty Status and Related Events, 1987-1989

Because of the sampling issues discussed in Chapter 2, we have substantially lower sampling variances associated with households which were in the lowest equivalent income quartile in phase 1 than with those which were in the other three quartiles. This means, that we have more reliable information on changes in the poverty status of those households which were in poverty in phase 1 than those which were not. Because of this we can speak with greater statistical certainty about households which *escaped* from

⁹ These figures are based on the subsample of 767 reweighted households which were interviewed at the second phase of the research programme. They can be compared with the level of poverty among non-farm households estimated from the full 1987 (phase 1) sample of 3,300 households (2,624 of which were non-farm households). Based on this substantially larger sample estimated poverty levels among non-farm households in 1987 are 6.9 per cent, 15.5 per cent and 26.0 per cent for the 40%, 50% and 60% lines respectively using equivalence scale A. Similarly, using this larger sample of non-farm households from the phase 1 dataset the percentage of persons in poverty below each of the same three lines are 10.0 per cent; 20.1 per cent and 30.7 per cent respectively.

poverty between phases 1 and 2 than we can about those, which fell *into* poverty over that period or those which did not fall below the poverty line at *either* round of interviewing. With this in mind we concentrate firstly on poverty escapes and then continue to say as much as is feasible about the broader range of poverty transitions among the overall population of households over the study period.

Before presenting details on the extent of poverty escapes one must first consider what is meant by the term. Two definitions can be considered. First, we could consider an escape from poverty as a movement from a position below each poverty line in phase 1 to a position above the same line by phase 2. In other words a movement from below the 40% line in phase 1 to a point above the *same line* by phase 2. The main disadvantage of this definition is that households which are just slightly below the poverty line in phase 1 may be lifted above it by phase 2 as a result of only a small increase in equivalent income. To prevent marginal shifts in real income from artificially inflating the extent of poverty escapes one can use a second definition of escape. This would involve a household moving from a position below each of the three lines in phase 1 to a position above the line which is located ten percentage points higher in phase 2. Using this second definition one would classify a household as having escaped from poverty only if it went from a position below the 40% line in phase 1 to a point above the 50% line in phase 2 or from a point below the 50% line in phase 1 to above the 60% line in phase 2 and so on. This second definition of poverty escapes would eliminate the problem of marginal changes in income tipping households slightly above the line and thus inflating the extent of escape. It is, however, an extremely severe criterion and would mean that only households which experienced substantial real income increases could potentially be classified as having escaped from poverty. Both definitions are equally valid

provided, they are interpreted within the context of their derivation. For this reason we present details on both- in our initial discussion on poverty escape rates.

Tables 4.5a and 4.5b present details on the extent of poverty escapes among non-farm households over the study period. The former presents escape rates based on the less restrictive definition (eg a movement from below the 40% line in phase 1 to a position above the same line by phase 2 etc). The latter presents details on poverty escapes based on the more restrictive definition involving a movement from, for example, below the 40% line to above the 50% line and so on.

From Table 4.5a we can see that, using equivalence scale A and a 40% poverty line, 59 per cent of households which were in poverty in phase 1 had escaped by phase 2. As one increases the poverty line to the 50% and 60% levels respectively, the escape rates fall off dramatically, standing at 30 per cent at the 60-60% level. Escape rates of similar orders of magnitude are evident for scales B and C. We can clearly see from the table that the scale used has an influence on escape rates.¹⁰ This is largely attributable to the lower weights given to children as one moves from scale A, through B to scale C (0.5, 0.4 and 0.33 respectively).

Table 4.5b provides details of poverty escapes using the more restrictive definition. The effect of this more rigorous criterion¹¹ is obvious. For example, using scale A 32 per cent escape at the 40-50% line; 24 per cent at the 50-60% and 18 per cent at the 60-70% lines.

¹⁰For a detailed discussion of the sensitivity of equivalised income (and associated relative poverty incidence) to equivalence weights see, for example Buhman *et al* (1988).

Table 4.5a: Extent of Poverty Escapes Among Non-Farm Households Between Phases 1 and 2 Using Less Restrictive Definition.

Poverty Status by Phase 2	Scale A			Scale B			Scale C		
	40-40%	50-50%	60-60%	40-40%	50-50%	60-60%	40-40%	50-50%	60-60%
Escape from Poverty	58.6	38.4	30.0	66.2	43.9	29.8	77.4	43.8	33.8
Still in Poverty	41.4	61.6	70.0	33.8	56.1	70.2	22.6	56.2	66.2
Total (Wgt'd n)	100.0 (50)	100.0 (117)	100.0 (192)	100.0 (39)	100.0 (115)	100.0 (204)	100.0 (31)	100.0 (108)	100.0 (199)

Table 4.5b: Extent of Poverty Escapes Among Non-Farm Households Between Phases 1 and 2 Using More Restrictive Definition.

Poverty Status by Phase 2	Scale A			Scale B			Scale C		
	40-50%	50-60%	60-70%	40-50%	50-60%	60-70%	40-50%	50-60%	60-70%
Escape from Poverty	32.4	24.1	18.2	37.1	25.3	15.6	45.2	26.1	16.8
Still in Poverty	67.6	75.9	81.8	62.9	74.7	84.4	54.8	73.9	83.2
Total (Wgt'd/ n)	100.0 (50)	100.0 (117)	100.0 (192)	100.0 (39)	100.0 (115)	100.0 (204)	100.0 (31)	100.0 (108)	100.0 (199)
Pov Level Ph 1 Line:	40%	50%	60%	40%	50%	60%	40%	50%	60%
% in Poverty	6.5	15.3	25.1	5.1	15.0	26.6	4.0	14.1	25.9

Equivalence weights as in footnote 7.

Note: By definition Tables 4.5a and 4.5b are based only on those households which were in poverty at phase 1 of interviewing.

An obvious extension of examining poverty escapes in isolation is to look at the changing poverty status of *all* non-farm households over the study period.¹¹ With a two-phase study period we can present a four-fold classification of the changing poverty status of all households as follows: (i) no poverty in either phase 1 or phase 2; (ii) no poverty in phase 1, poverty in phase 2 (ie those who fall into poverty over the study period); (iii) poverty in phase 1, no poverty in phase 2 (ie poverty escapes); (iv) poverty in phase 1 and poverty in phase 2. Unfortunately, sample size precludes any rigorous analysis based on this four-fold classification. Our phase 2 sample simply does not have enough cases in each category to allow strong statements to be made about the data at the 40% or 50% relative poverty line. The relatively small sample size means that it would be impossible to meaningfully discuss "trends" within groups (2) to (4) at the 40% or 50% levels and so in the remainder of the chapter we will consider briefly some of the characteristics of each of the four poverty categories at the 60%-60% threshold.

Table 4.6 presents details of households classified by poverty transition status between phases 1 and 2 of the survey. We can see, for example, that at the 60% relative lines approximately 64 per cent of households experienced poverty at *neither* round of interviewing while just under 10 per cent fell into poverty over the study periods: A further 8 per cent escaped from poverty over the period in question and the remaining 18 per cent were in poverty at both rounds of interviewing. The actual level of the figures in themselves are not the *most* significant aspect of the table. The important point to note is that those who are escaping from poverty are being replaced in approximately the same proportion by those who fall below the line over the study period. This trend is also clear at the other two poverty levels (ie the 40% to 40% level and 50% to 50%

¹¹Once again the reader's attention is drawn to the fact that we can have greatest statistical confidence in the data on poverty escapes due to the sample structure of phase 2.

level).¹² Indeed, at these latter two levels one finds that the "escapers" are almost exactly replaced by those who fall into poverty. Table 4.6 shows that at the 60% level those who fall into poverty slightly outnumber the escapes. This trend underlines the dynamic in poverty and the dangers inherent in comparing incidence rates from one cross-section to another.

Table 4.6: Poverty Status Changes for Non-Farm Households Between Phases 1 and 2

	60% Rei Line Ph 1 to 60% Rei Line Ph 2 Scale A	Scale B (Per Cent)	Scale C
(1) No Poverty Phase 1 or Phase 2	65.3	63.5	63.6
(2) No Poverty Phase 1Poverty Phase 2	9.6	9.9	10.6
(3) Poverty Phase 1No Poverty Phase 2	7.5	7.9	8.8
(4) Poverty Phase 1 and Phase 2	17.5	18.7	17.1
Total	100.0	100.0	100.0
(N)	(767)	(767)	(767)

Equivalence weights: Scale A - head of household 1.0; other adult 0.7; child 0.5.
Scale B - head of household 1.0; other adult 0.6; child 0.4.
Scale C - head of household 1.0; other adult 0.66; child 0.33.

Some consideration must also be given to the medium- to long-term prospects of these changes in poverty status. For example, can one assume that the 17 per cent of households who were found to be in poverty in both 1987 and 1989 represent those in a state of long-term, structural poverty? The answer is no, at least not from the data available to us. The data we have presented here relate to short-term movements into and out of poverty. We do not know what the poverty status of households was either before 1987 (the point of first interview) or after 1989 (the second interview). Some of the 17 per cent of households in poverty at both points of interview may indeed

"These figures are not reported here because of small cell size.

be experiencing long-term, structural poverty. For others it may be a shorter, perhaps two or three year, phenomenon. Similarly, for some of those who escape, the graduation out of poverty may only be short-term and they may subsequently return to poverty. Furthermore, we have no information on actual duration of poverty spell. Some of those who escaped over the period 1987-1989 may have ended a very lengthy spell of poverty. For others the experience of poverty in 1987 at the point of first interview may have been a short-term aberration in their longer-term poverty status and so the escape by 1989 was simply a return to a more normal situation. The problems presented by so-called left and right truncation of the data, as well as issues associated with duration of spell *per se*, can be addressed only if one has access to a relatively long run of high quality data such as that available in the US from the Panel Survey of Income Dynamics (PSID).

Finally, we must ask whether or not anything can be said about differences in the characteristics of the households which make up each of the four groups outlined in Table 4.6. We are once again constrained by the number of cases available for analysis. None the less, a few observations may be made. Changes in poverty status are strongly associated with changes in the number of economically active members in the household. Although the number of cases is relatively small, there is evidence from the 1987-1989 linked dataset that poverty escape is associated with an increase in the number of economically active household members.

Change in the employment status of household head is also of importance in an analysis of change in household poverty status. A threefold classification of employment status of household head at each point of interview, *viz*, employed, unemployed and other¹³ gives a ninefold classification of *change* in status over the study period. It is

"Includes the following categories: unable to work due to permanent illness; retired; on home duties; full-time education and miscellaneous "other".

clear that when we cross-classify each of the four poverty transition categories according to a ninefold typology on status change, the number of cases involved becomes extremely small in some cells. None the less, Table 4.7 shows that if we maintain the focus on the 60%-60% poverty level, a number of trends can be identified as follows.

First, a total of 61 per cent of households which did not experience poverty at either round of interviewing were headed by someone in employment at both points of the survey. The table shows that this compares with 18 per cent for households which fell into poverty over the study period, 31 per cent for those who escaped from poverty and 13 per cent for those who experienced poverty in both 1987 and 1989.

Secondly, 6 per cent of households which fell into poverty over the study period were headed by someone who went from an employed to an unemployed status. This compares with an overall population average figure of 3 per cent and hence implies that households which fell into poverty over the period in question were twice as likely as the national average to be headed by someone who went from an employed to an unemployed status.

Thirdly, households which escaped from poverty had an above-average probability of being headed by someone who went from unemployment to employment. A total of 13 per cent of "escapers" were headed by someone in this category, compared to a national average of 3 per cent. This means that households which escaped from poverty were almost four times as likely as the national average to be headed by someone who went from unemployment to employment over the period in question.

Fourthly, the data show that over one-third of households (36 per cent) which were experiencing poverty in both 1987 and 1989 were headed by someone who was unemployed at both points of

interview. This figure compares with, for example, 9 per cent for all households and less than 1 per cent for households which were not experiencing poverty at either point of the survey. Overall, therefore, households in poverty at both phases of the research were more than four times as likely as the national average of being headed by someone who was unemployed in both 1987 and 1989.

Table 4.7: Households Classified by Changes in (i) their Poverty Status and (ii) the Employment Status of Head of Household in Phases 1 and 2

	Employment Status of Household Head					
	Employed Employed	Employed Unemployed	Unemployed Employed	Unemployed Unemployed	Residual Other(lab Force Trans.	'Total (N)
	Per Cent					
No Poverty Phase 1 or Phase 2	60.9	1.5	1.6	0.5	35.4	' 100.0 '' (500)
No Poverty Phase 1 Poverty Phase 2	17.8	6.0	4.5	1.0	60.8	,100.0 (74)
Poverty Phase 1/ No Poverty Phase 2	31.5	1.6	12.6	10.8	43.0	,100.0 .. (58)
Poverty Phase 1 and Phase 2	13.5	7.7	5.1	36.5	37.0	100.0'(135)
Total	46.2	3.1	3.3	8.6	38.7	,100.0,(767)

Note: Table based on poverty status using the 60% lines in phases 1 and 2 with scale A equivalence weights.

"Includes labour force transitions categories such as: employed to "other"; unemployed to "other"; "other" to "other" etc. Approximately 90 per cent of the transitions in this residual category were "other" to "other."

4.4 Summary

In this chapter we have tried to develop a new perspective on the poverty debate in Ireland by considering trends in poverty dynamics emerging from the international literature as well as the (somewhat limited) data available for Ireland.

The focus of much of this research has been the United States where a good quality longitudinal dataset stretching back to the late 1960s (the Panel Survey of Income Dynamics) is available. We saw that using PSID data covering the period 1969-1978, 35-46 per cent of those who were poor in any given year had escaped by the next year. The corollary of the escape rates is the percentage of persons who fell into poverty. The PSID data for the period 1974-1978 suggest that 3-4 per cent of those who were not poor in any given year had fallen into poverty by the following year.

In general, poverty durations in the United States are relatively short. For example, Bane and Ellwood (1986) find that over the period 1970-1982 about 45 per cent of poverty spells are over within one year and 70 per cent are over within three. A total of 12 per cent, however, last more than nine years. Using a slightly different approach to measuring poverty durations Duncan (1984) finds that over the period 1969-1974, a total of 24 per cent of the US population was poor in one or more years; 5 per cent were poor in five or more years and 3 per cent were poor in eight or more years. Just under 1 per cent of the US population were poor in all ten of the years under study.

What can be said of the Irish experience of income and poverty dynamics? Some trends in short-term transitions over the period 1987-1989 can be gauged from a longitudinal dataset which has been recently developed in the ESRI. As a preliminary to examining poverty dynamics *per se* we saw that there was a sizeable percentage of households which experienced a major reversal in their perceived ability to make ends meet over the study period. A total of 15 per cent

of households which were experiencing great/some difficulty in 1987 said they were able to make ends meet fairly easily/easily/very easily by 1989. In contrast to this group we found that 13 per cent of households which were able to make ends meet with some relative degree of ease in 1987 were, by 1989, experiencing great/some difficulty.

In terms of objectively measured poverty status we found that escape rates were 59 per cent at the 40%-40% line; 38 per cent at the 50%-50% line and 30 per cent at the 60%-60% line. When focusing on the totality of non-farm households (and using a 60%-60% line as our benchmark) we saw that approximately 65 per cent had experienced no poverty at either round of interviewing; just under 10 per cent had fallen into poverty over the study period; 7 per cent had escaped from poverty and the remaining 17 per cent were experiencing poverty at both points of interview.

There are two particularly significant aspects of these figures. First, the analysis based on both the subjective perceptions of ability to make ends meet and the objectively defined relative poverty lines clearly suggest that there is a dynamic aspect to poverty and deprivation. The actual levels of the figures in themselves are not the all-important consideration. The most significant point to note is that those who are escaping from poverty are being replaced, in approximately the same proportion, by those who fall below the poverty line over the short term. Secondly, the critical factor in regard to income mobility and poverty transitions in Ireland seems to be labour market conditions and related changes in employment status of household head. This contrasts somewhat with much of the evidence discussed from the PSID which indicates that change in family composition is *the* most important factor in determining economic mobility. Although the sample was small, we did not identify any large-scale incidence of household break-up. Most of the compositional change involved the birth of a child or the entry of another member to the household. Marital breakup did not feature

significantly in our data. In the small number of cases where it did feature there were certainly specific instances of consequent hardship. This, however, was not manifest on a systematic or widespread basis.

Although some of the findings presented from both the international literature and the Irish data may seem to be self-evident and to accord with what one would expect *a priori*, they clearly have an important role to play in the poverty debate. They underline the dynamic nature of poverty and consequently have policy implications which may have hitherto been overlooked. Only by quantifying the relative extent of cyclical and structural poverty and by identifying differences in the characteristics of both groups can we hope to put forward policy prescriptions which will address all aspects of the problem.

CHAPTER 5

Changes in Material Deprivation and Poverty

5. Introduction

In Chapters 3 and 4 we focused exclusively on short-term changes in income and income-based poverty lines. In this chapter we provide a complementary analysis of changes in poverty status over the study period. In particular, attention is directed to the development of non-financial indicators of material deprivation. Changes in these indicators over the period 1987-1989 are initially examined. We then go on to look at how these non-monetary indicators can be combined with the relative income measures of poverty discussed up to this point in the report. An analysis of this combined poverty measure based on financial and non-financial indicators provides one with a more rounded, composite index of the extent of poverty and changes therein over time.

The remainder of the chapter is divided into six subsequent sections. First, we examine the development of non-monetary or resource-based measures of deprivation through the international literature. Secondly, we look at recent developments in this field in Ireland using data from the first phase of the ESRI survey on Lifestyles and Usage of State Services. Thirdly, we consider the relationship between non-monetary deprivation indicators, income level and relative income poverty lines. Fourthly, we discuss short-term changes in the material deprivation indices over the period 1987-1989. Fifthly, we look at the extent of poverty transitions using a combined relative income and deprivation threshold as our benchmark. Finally, we present a summary of our findings.

5.1 Resource-Based Measures of Deprivation:

The International Experience

The seminal work in this field is Townsend's study of poverty in the UK (1979). The starting point for his work is synthesised in his classic definition of poverty given in the opening paragraph to his book:

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Poverty can be defined objectively and applied consistently only in terms of the concept of relative deprivation ... Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved in the societies to which they belong. Their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities (1979:31).

On this basis, therefore, Townsend clearly defines poverty as a form of social exclusion from a way of life which is consensually validated as the norm of society. In operationalising his definition Townsend collected details on lifestyles and resources available to a sample of households (in addition to information on income, assets and related characteristics). Sixty indicators relating to the degree of access to material resources were included in his survey. These were broken into 12 major categories as follows:!

Dietary (6)	Housing Conditions/Amenities (4)
Environmental (5)	Clothing (4)
Working Conditions (12)	Family (4)
Fuel and Light (4)	Health (5)
Recreational (2)	Household Facilities (9)
Educational (0)	Social (4)

From the range of categories included, it is clear that Townsend attempted to capture the multi-dimensionality of poverty and deprivation in his data. From the 60 individual items he derived a

The figures in parentheses give the number of individual items contained within each of the twelve major categories.

summary deprivation index based on 12 items only to cover dietary, household, familial, recreational and social deprivation. A household's deprivation score (ranging from 0 to 12) was then constructed on the basis of possession or lack of each of the 12 items in question. The sort of items used in this summary index included the absence of the following: a holiday away from home in the last 12 months; an afternoon or evening out for entertainment in the last two weeks; fresh meat at least four days a week; a cooked meal on one or more days in the past fortnight; a cooked breakfast most days of the week; a Sunday joint; sole use of four indoor household amenities, *viz*, flush toilet; sink and running water, fixed bath or shower; gas or electric cooker.² By relating equivalised household income to scores on his summary deprivation index, Townsend identified a poverty threshold at 140 per cent of the supplementary benefit standard.³ Below this point he claimed that there was "... a sudden withdrawal from participation in the customs and activities sanctioned by the culture" (1979:57). On the basis of this line he estimated that 23 per cent of the population in the UK were in poverty in 1969.

Townsend's work is clearly not free of criticism. Objections to his methodology have been raised in at least three distinct areas as follows. First, there is the fundamental issue as to which items are included by the researcher in his analysis. Townsend's items appear to have been selected on a purely arbitrary basis. Indeed, he himself

² The reader should note that the survey in Townsend's study was carried out in 1968. The 60 items chosen as indicators of deprivation should be interpreted within that context.

³ To locate the poverty line Townsend plotted household score on the summary deprivation index against the log of income as a percentage of the supplementary benefit scale. It should be noted that in doing this he was adopting an indirect approach to the assignment of poverty status. In other words, he used resources to strike the poverty threshold in the first instance but then used household income to determine whether or not the household was in poverty. As we will see below, this approach contrasts with later work, notably by Mack and Lansley (1985), who used the households' resources as a direct measure of their poverty status.

notes that one could first undertake an analysis of the customs, mores and lifestyle of the population under study in order to identify the most appropriate items for inclusion in the deprivation index. He further notes, however, that "... in practice we sought only to ensure that all the major areas of personal, household and social life were represented in our questionnaire" (1979:251). Item selection has led some, for example Veit-Wilson (1987), to question the extent to which the researcher's prejudices and ideas on how the world *ought* to be are allowed to affect the composition of the deprivation index (1987:194-202). By adopting what Veit-Wilson describes as the position of privileged sociological commentator there is an ever present danger that the researcher may impose his/her own value system on the mass of the population in defining poverty and deprivation.

Secondly, some people may simply not want to have certain of the items under consideration. Such issues of taste and choice cannot be accommodated within Townsend's methodology. At one extreme, for example, the aesthete may decide not to "indulge" himself in certain activities or with certain possessions. In such cases his lack of any given item is a matter of taste and free choice and is clearly in no way indicative of deprivation, social exclusion etc. Similarly, a vegetarian would be assigned a positive score on at least one (if not two) items in Townsend's summary 12-item index. The items in question are: does not have fresh meat as many as four days a week; and has not had a cooked breakfast most days of the week.

Thirdly, some researchers query the methodology used by Townsend to locate the poverty line. This was done by identifying a turning point in the graph of deprivation score against log of income expressed as a percentage of supplementary benefit rates. Although Desai (1986) re-analyses Townsend's data using regression techniques and found that a break in the distribution did occur as suggested by

Townsend, others (for example, Piachaud (1987)) rejects the findings of this more rigorous analysis."

A second landmark study on the use of resources and deprivation as indicators of poverty is Mack and Lansley (1985). These authors attempt to update and build upon Townsend's work. The purpose of their report is to:

... measure the extent of poverty not in terms of some arbitrary income level but in terms of the extent to which the poor are excluded from the way of living that is expected and customary in society today ... the central idea of the study is that poverty can be defined in terms of an enforced lack of socially perceived necessities. (1985:9).

In other words, they explicitly state their objective as measuring poverty in terms of an enforced lack of socially perceived necessities rather than with an income poverty threshold.

In their study, Mack and Lansley asked respondents to identify which of 35 items they considered to be necessities; whether or not they possessed each of the items; and (of those which they did not possess) whether or not this was because they could not afford the item in question or because they simply chose to do without it - in other words whether or not it was a voluntary or enforced lack.

In defining poverty Mack and Lansley used only those items which were deemed by a majority of the population to be necessities (22 out of the 35 included in their questionnaire). This reduced set of "necessary" items included the following: heating; indoor toilet; damp-free house; bath/shower; refrigerator; a roast joint once a week; a washing machine; new (not second-hand) clothes; meat or fish every

⁴ Piachaud's main source of concern relates to what he perceives as a misspecification of the income variable used by Desai (see Piachaud, 1987:161-163)

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other day; presents for family or friends once a year; a week's holiday away from home once a year; a warm waterproof coat; two pairs of all-weather shoes; and two hot meals a day. Using these items, a poverty criterion was established such that those who were experiencing an *enforced lack* of three or more necessities were classified as being "in poverty". On this basis, approximately 5 million adults and 2.5 million children were in poverty in Britain at the time of the survey in February 1983. This represents just over 14 per cent of the population at that time.

At least two important differences should be noted in the approaches adopted by Townsend (1979) on the one hand and Mack and Lansley (1985) on the other. First, the later study can, at least in part, be considered to have adopted a consensual approach in contrast to the strictly behavioural approach adopted by Townsend. The respondents in the 1979 study were not consulted as to which items should be included in the summary deprivation index or as to where to strike the poverty line. The inclusion of items was prescribed by the researcher which in itself provoked much criticism as regards the researcher being assigned a "privileged status" in terms of what should and should not be included. Respondent's poverty status was then indirectly determined on the basis of their behaviour (in terms of possession or otherwise of the items).; This approach contrasts with that adopted by Mack and Lansley. In their study they asked respondents which items were regarded as necessities. Only socially agreed necessities were then included in their index of poverty status. In this respect, the extent to which the experts' prejudices were imposed on the population was to some extent lessened. None the less, Piachaud (1987), for example, notes that the consensual approach still depends on expert involvement in defining questions and interpreting answers (1987:152). Furthermore,

⁵ As was discussed above, this was done indirectly on the basis of the relationship between income and access to resources.

as Walker (1987) points out, the Mack and Lansley approach is not without researcher intervention as regards the final measure of poverty (ie the enforced lack of three necessities). This threshold was determined on a wholly arbitrary basis by the researchers themselves.

A second important point of contrast between the Townsend and Mack/Lansley studies is the use by the latter of an *enforced lack* criterion. This goes some considerable way towards addressing the issues of taste and choice. Even this approach, however, can be criticised on the basis that an enforced lack of any item is a self-assessment on the part of the respondent. Ashton, for example, notes that:

a household might lack the item "carpets in the living room and bedroom" because they claim they cannot afford them, but may possess, say, an expensive hi-fi stereo unit. We are asked to accept that when someone says they cannot afford a particular item, they have not chosen instead to spend their money on something else that they regard as more essential (or desirable), but which does not appear on LWT's list *Cie the 35 items used in the Mack and Lansley study* (1984:98).

Furthermore, although the use of an enforced lack criterion is an improvement on the Townsend approach questions arise in its application concerning the effect which the prolonged lack of an item (particularly an enforced lack) can have on expectations. In this context questions can be raised as to the constancy or otherwise of the meaning of "choice" across all levels in the income distribution. Someone who has experienced a prolonged lack of an item may no longer perceive it as an enforced lack or indeed may simply not want to admit to an interviewer that he/she cannot afford the item(s) in question.

5.2 Resource-Based Measures of Deprivation: The Irish Experience

Phase 1 of the ESRI Survey on Lifestyles and Usage of State Services made it possible, for the first time in Ireland, to develop resource-based measures of poverty and deprivation. In that survey respondents were presented with a list of 20 items and asked whether or not (i) they considered each to be a necessity; (H) they possessed the items in question; and (Hi) in respect of items which they did not possess, whether or not they would like to but could not afford to (in other words, was it a voluntary or *enforced lack*). Table 5.1 below provides a full listing of the items used. One can see that these correspond closely to those used by Mack and Lansley (1985). Callan *et al* (1989:112) presents details on the percentage of households lacking each of the items, the percentage experiencing an "enforced lack" and the percentage stating the items to be a necessity. They found that a total of 14 of the items (those marked with an asterisk in Table 5.1) were regarded as a necessity and were possessed by a majority of the population.⁶ Using this dual criterion (of perceived social lack and majority possession) they devised a 14-item deprivation index based on an enforced lack of each of the items in question. In other words, they constructed a deprivation index which ran from 0 to 14 by assigning a score of one for each of the 14 items which the household did not possess because of financial constraints. On the basis of this 14-item index it was found that just under 51 per cent of the population experienced no deprivation (ie experienced an *enforced lack* of none of the 14 items in question). At the other end of the scale, 8

⁶ Callan and Lansley required only that an item be considered as a necessity by a majority of the population for inclusion in their deprivation index. Callan *et al.* (1989) however, note that two items (a week's holiday away from home and an ability to save) were regarded as a necessity by a majority of the population but were undertaken by only 32 per cent and 43 per cent respectively. On this basis Callan *et al* extended the Mack and Lansley criteria to include majority possession as well as the "necessity" criterion (Callan *et al* 1989:114-115).

per cent of households lacked five or more of the items contained in the index. The mean score for enforced lack in the population as a whole is 1.3 items.⁷

Table 5.1: Deprivation Indicators Included in ESRI Survey

*Refrigerator	A week's annual holiday	*Bath or shower	A daily newspaper
*Washing Machine	*Dry, damp-free dwelling	*Meat, chicken or fish at least every second day	*Roast joint once a week
Telephone	*Heating for living rooms	*Warm, waterproof overcoat	*Hobby or leisure activity
*Car	Central heating	*Two pairs of strong shoes	*New (not second-hand clothes)
Colour TV	*Indoor toilet	To be able to save	*Presents for family and friends once a year

* Used in summary 14-item deprivation index by Callan *et al* (1989), ie fulfilled extended Mack-Lansley criteria of being regarded as a necessity and possessed by a majority of the population.

In more recent work based on the 1987 survey, Whelan *et al* (1991) and Callan *et al* (1993) substantially develop the resource-based deprivation indicators using multivariate statistical techniques. This work was based on the same 20 resource items used by Callan *et al* (1989) (and outlined in Table 5.1) along with four additional items as follows: Ci) *Food Poverty* - measured in terms of whether or not there was a day during the previous two weeks when the household manager did not have a substantial meal at all, from getting up in the morning to going to bed; (H) *Heat Poverty* - measured in terms of

⁷ The reader should note that these figures relate to *all* households in the population, ie farm and non-farm households (see Callan *et al* 1989, Table 8.2)

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whether or not the household manager had to go without heating during the last year through lack of money, ie had to go without a fire on a cold day, or go to bed early to keep warm or light the fire late because of lack of fuel; Ciii) *Evening Out* - based on whether or not the head of household had been able to afford an afternoon or evening out in the two weeks preceding the interview; (iv) *Debt Problems* - this was indicated by an affirmative on any of the following four items: Ca) household currently in arrears with the rent, mortgage, ESB or gas; Cb) household had to go into debt in the last 12 months to meet ordinary living expenses; Cc) household had to sell or pawn something worth £50 or more to meet ordinary living expenses; (cl) household received assistance from a charity in the last 12 months.

Using a factor analytic technique, S Whelan *et al* (1991) identified three factors of deprivation from the 24 items. They described these as primary lifestyle deprivation; secondary lifestyle deprivation; and housing & household capital deprivation. Primary lifestyle deprivation refers to a lack of basic items such as food, clothes, heating, etc. Secondary lifestyle deprivation refers to items which are associated with the ascendant middle class or comfortable working class and is based on items such as: a week's annual holiday; an ability to save regularly; a daily newspaper; a hobby; a car etc. Housing & household capital deprivation refers to items associated with housing quality and amenities. Table 5.2 shows how each of the 24 items involved fit into this threefold typology.

⁸ Factor analysis is a multivariate statistical technique which is used to determine a relatively small number of factors from a larger number of input variables. In so doing it allows a more parsimonious description of the dataset than the raw data would allow. The first stage of the procedure is to identify the relationship between variables based on the intercorrelations of the raw data. In the next stage one defines a new set of variables based on these intercorrelations. These new variables are exact transformations of the original data which account for the variance in the original data and which are orthogonal (uncorrelated) to each other. The technique thus allows one to describe the variation in a wide range of variables by reference only to a limited number of newly created variables (ie the derived factors).

Table 5.2: Allocation of 24 Resource Items in the Primary, Secondary and Household Capital Deprivation Classification

Primary life-Style Deprivation	Secondary life-Style Deprivation	Housing & Household Capital Deprivation
- Heat poverty	- A week's annual holiday	- Bath or shower
- Food poverty	- To be able to save regularly	- Indoor toilet
- Debt poverty	- A daily newspaper	- Washing machine
- New (not second-hand) clothes	- Telephone	- Refrigerator
- Meat, chicken or fish every second day	- A hobby or leisure activity	- Colour television
- Warm, waterproof overcoat	- Central heating	- Dry, damp-free dwelling
- Two pairs of strong shoes	- Car	- Heating for the living room when it is cold
- A roast joint once a week	- Presents for family or friends once a year	
	- An evening out in the previous two weeks	

Using this classification, and an *enforced lack* criterion, Callan *et al* (1993) present the distribution of households' score on the eight-item primary deprivation index, as shown in Table 5.3.⁹ From this we can see that a total of 68 per cent of households have a zero score, 15 per cent have a score of one and the remaining 17 per cent a score of two or more. In view of the conceptual and methodological criticisms raised in Section 5.1 in relation to the development of these deprivation indicators, it seems pertinent to ask whether or not the scores on the indices developed by

⁹ Respondents were given a score of one for each of the eight items in respect of which they were experiencing an "enforced lack". For example, a household which was experiencing an enforced lack of one of the eight items on the primary deprivation index was assigned a score of one; those who were experiencing an enforced lack of two items were assigned a score of two on this index and so on. Thus, according to the typology developed in Whelan *et al* (1991) and Callan *et al* (1993) the range of scores on the primary lifestyle index was 0-8. On the secondary lifestyle index it was 0-9 and on the housing & household capital index it was 0-7.

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Whelan *et al* (1991) and Callan *et al* (1993) can be validated in any way. A striking empirical validation is provided by Whelan *et al* (1991).

Table 5.3: Distribution of Households from Phase 1 of ESRI Survey (1987) According to Score on Primary Deprivation Index

Score	Percentage of Households
0	68.0
1	14.7
2	6.7
3	4.5
4 or more	6.1
Total	100.0

Source: After Table 4 Caflan *et al* (1993).

This table relates to *all* households in phase 1 of the survey, not just non-farm households.

In Table 5.4 we present details from that study on the percentage of households experiencing extreme difficulty in making ends meet classified in terms of score on the primary deprivation index. Information on difficulty of making ends meet was collected in a direct question answered by the household head. He/she was presented with a sixfold range from "with extreme difficulty" to "very easily". The information in Table 5.4 speaks for itself. One can see that there is a strong and positive relationship between the respondent's normative assessment of the household's ability to make ends meet and the household's score on the primary deprivation index. From the table we can see, for example, that 92 per cent of households which had a deprivation score of five or more were experiencing extreme difficulty in making ends meet. At the other extreme just over 17 per cent of households, which had a primary deprivation score of zero were experiencing extreme difficulties.

Table 5.4: Households Experiencing Extreme Difficulty in Making Ends Meet Classified by Primary Deprivation Score

Primary Deprivation	Percentage Experiencing Extreme Difficulty
0	17.5
1	43.9
2	55.4
3	76.0
4	88.0
5+	92.0

Source: After Table 5.2, Whelan *et al* (1991).

This table relates to *all* households in phase 1 of the survey, not just non-farm households.

5.3. Deprivation Indicators, Income and Relative Income Poverty Lines

In this section we consider how direct poverty measures, based on resource or lifestyle indicators, relate to income and poverty status as defined by relative income lines. In so doing we begin to examine the relationship between measures of income and consumption (the latter at a fairly crude level of generalisation).

Table 5.5 presents details on households from the 1987 survey classified in terms of their primary deprivation score and equivalent income decile. From this one can see that, as would be expected, the percentage of households with non-zero scores on the primary deprivation index falls off rapidly as one rises through the equivalent income deciles. Although this relationship is strong it is clear that some households experiencing primary deprivation are in the upper reaches of the income distribution.

Similarly, one can examine the relationship between relative income poverty and deprivation indicators. In doing this for Ireland Whelan (1993) partitions the total population into four groups in terms of

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income security/insecurity as well as non-monetary deprivation/non-deprivation. This gives a distribution of the population as shown in Table 5.6. From the information in the table one can see that just over 86 per cent of households are consistently classified as either poor or non-poor using relative income and resource-based measures of poverty. In other words, if one defines a poverty criterion based on Ca) being below the 50% relative income poverty line and Cb) experiencing enforced deprivation of at least one item on the primary deprivation index, then 10 per cent of households will be classified as being "in poverty". These we can call the "consistent poor", ie they are poor in terms of low income and are also poor when measured in terms of resource deprivation. The corollary of the consistent poor group is the "consistent non-poor" which constitute 77 per cent of households in the population. These households are consistently non-poor in the extent to which they are Ca) above the relative income poverty threshold *and* Cb) have zero scores on the primary deprivation index.

Table 5.5: Households Classified by Equivalent Income Decile and Primary Deprivation Score

Equivalent Income Decile	Households with Primary Deprivation Score of		Equivalent Income Decile	Households with Primary Deprivation Score of:	
	≥1	≥2		≥1	≥2
1 (LOW)	17.2	21.2	6	8.9	8.4
2	17.9	23.4	7	6.6	5.3
3	16.3	18.2	8	5.6	3.2
4	12.5	9.4	9	3.6	2.5
5	8.3	7.3	10 (HIGH)	3.1	1.2
Total			100.0 100.0		

Source: Table 5, Cal/an *et al* (1993).

This table relates to *all* households in phase 1 of the survey, not just non-farm households.

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Table 5.6: Distribution of the Population According to Relative Income and Deprivation-Based Measures

		Ireland	Holland
		%	%
Consistent Non-Poor	High Income/Low Deprivation	76.6	83.7
Inconsistent Group	High Income/High Deprivation	4.9	6.9
Consistent Poor	Low Income/High Deprivation	9.8	2.8
Inconsistent Group	Low Income/Low Deprivation	8.7	6.6

Source: After Whelan (1993:15)

This tables relates to *all* households, not just non-farm households.

There are two inconsistent groups in Table 5.6. First, we have the 5 per cent of households which are classified as being above the relative income line *and* having a non-zero score on the deprivation index. This implies that they are not in relative income poverty but are deprived in terms of their access to material resources. Secondly, we have 9 per cent of households which are in poverty according to a relative income line but which have a zero score on the primary deprivation index. These apparent inconsistencies are clearly disconcerting. A number of points should be noted. First, some consideration should be given to the disposable income concept used. The relative income poverty measure is based on *current* income, ie the income received in the week (or month, etc) preceding the survey. It is thus possible, for example, that a household would have experienced a recent fall in income after a prolonged period of relatively high income. This may have been perhaps due to the onset of a spell of unemployment on the part of the main wage earner, etc. Under such circumstances the household may have been able to avoid, in the short term at least, experiencing primary deprivation by drawing on previously accumulated reserves of resources. This explanation could account for some of the 9 per cent of apparently inconsistent households with low income and low deprivation scores in Table 5.6.

Secondly the corollary of this explanation could be used to account for some of the 5 per cent of apparently inconsistent households which have high incomes and high levels of primary deprivation. Once again, given the current nature of the income measure, the high income could reflect recent employment of a household member after a prolonged period of low household income during which time the household was clearly deprived in terms of resources at its disposal.

In the context of these apparently inconsistent cases one must, of course, acknowledge that some may be due to recording difficulties which are common to all questionnaire surveys. For example, respondents may not want to admit to an interviewer that they cannot afford things which they themselves perceive as being necessities and which would, therefore, form part of the primary deprivation index. Similarly, as discussed in Chapter 2, there may have been a limited number of cases where there were reporting difficulties as regards income. These measurement difficulties will obviously affect the efficiency of the measures discussed in this section.

It is important that one should note that these apparent inconsistencies are not unique to Ireland. Whelan (1993) notes that the level of divergence between income and deprivation measures in the Netherlands is roughly comparable with the Irish situation. For example, Table 5.6 shows that 7 per cent of Dutch households were classified as being high income/high deprivation while a further 7 per cent were assigned to the low income/low deprivation category. The percentage of households in the inconsistent groups is almost identical in both Ireland and Holland. None the less, the reader should note that direct comparisons of levels between the two must, at best, be tentative because the deprivation measures and relative income lines used in the two studies are quite different.¹⁰ The

¹⁰ For a full description of the Dutch study see Muffels (1993).

importance of the Dutch figures in the present discussion is that they clearly show that the apparent inconsistencies between relative income and resource-based measures of deprivation are not a peculiarly Irish phenomenon.

Notwithstanding some of these conceptual and definitional issues it is clear that a combined relative income and resource-based measure of deprivation provides us with the most integrated and comprehensive indicator available for examining the level of poverty in a single, composite index. Ringen states the position well when he notes:

Low income, for example, may represent only a temporary and atypical situation which does not force the person to change his lifestyle - he may for a while live off savings - and there may be ways of avoiding life in deprivation such as to live on someone *else's* income.... On the other hand, to rely on way of life indicators alone, that is, to go all out for direct measurement, is also insufficient since people may live as if they were poor without being poor We need to establish not only that people live as if they were poor but that they do so because they do not have the means to avoid it. 0987:162)

In the remainder of this chapter we will build on the methodology developed by Whelan *et al* (1991) and Callan *et al* (1993). We begin in section 5.4 by examining short-term changes in the non-monetary indicators of deprivation, focusing in particular on the primary deprivation index developed by Callan *et al* (1993). We then go on in section 5.5 to consider changes in household poverty status using a combined relative income/resource-based threshold.

5.4 Short-Term Changes in Deprivation Indices

Table 5.7 presents details on several distributions of the resource-based indicators of deprivation among non-farm households at both rounds of interviewing. As noted in section 5.2 above respondents were asked three

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questions in respect of the 20 items at the first round of interviewing (in 1987) *viz* (a) whether or not each of the items was considered to be a "necessity"; (b) whether or not they possessed the items in question and; (c) in cases where a household did not possess an item whether or not this was a matter of free choice or was due to financial constraints (Le., voluntary as opposed to enforced lack of resources).

The individual items in Table 5.7 have been classified in terms of the three deprivation factors. The data show that well over 80 per cent of households at the first round of interviewing felt that four of the five items¹¹ which were included in the primary deprivation index were a necessity. The fifth item (a roast joint of meat once a week) was perceived to be a necessity by 59 per cent of households.¹²

The items which load onto the secondary deprivation index were, in general, perceived as a necessity by smaller percentages of the population. Only two items - the ability to save regularly (86 per cent) and a hobby or leisure activity (77 per cent) - were felt to be

¹¹Two points should be noted as regards the items included in the primary deprivation index. First, Whelan *et al* (1991) and Callan *et al* (1993) included eight items in their primary index. In phase 2 of the survey information was collected only in respect of seven of these items. Details on "Heat Poverty" were not collected. Because of this we concentrate on a seven-item (rather than eight-item) primary deprivation index in the remainder of this chapter. The factor structure of the analysis carried out by Whelan *et al* (1991) and Callan *et al* (1993) is so clearly articulated that the exclusion of one item will not affect the analysis. Secondly, by the nature of food and debt poverty it is not meaningful to consider them in terms of socially perceived necessities in column one of Table 5.7. Furthermore, variable construction was such that a household either did or did not experience deprivation in this regard. The issue of enforced or voluntary lack of these particular items does not arise.

¹²The information on whether or not items were a necessity was not collected at phase 2 of the survey. In the latter round of interviewing households were asked only whether or not they possessed each item and in respect of those which they did not possess whether or not the lack of an item was voluntary or "enforced" by financial circumstances.

social necessities by more than 75 per cent of households. Some items in this index of secondary deprivation were felt to be a necessity by a minority or only small majority of non-farm households, eg a car (51 per cent); central heating (50 per cent); a daily newspaper (42 per cent); and a telephone (42 per cent).

The seven items included in the index of housing & household capital deprivation were felt to be a necessity by a substantial majority of the population - most items by more than 90 per cent of non-farm households. The only exception was a colour television, which was perceived to be a necessity by only 40 per cent of households.

The table shows that only relatively small percentages of households experienced an "enforced lack" of each of the items associated with both the primary and the housing & household capital deprivation indices. Only in respect of three of the 14 items included in these two indices did more than 10 per cent of households experience an "enforced lack" at either round of interviewing. The three items in question are: two pairs of strong shoes (11-12 per cent of non-farm households at both rounds of the survey); a roast joint of meat once a week (13-14 per cent); and debt poverty (14-20 per cent).¹³ An "enforced lack" was experienced by less than 10 per cent of non-farm households in the case of each of the other 11 items in question. It is clear from the table that enforced lack of the items included in the secondary deprivation index was a much more pervasive phenomenon than for those included in either of the other two indices. Indeed, a majority of non-farm households experienced an enforced lack of some of the secondary deprivation items such as a week's annual holiday away from home (48 and 51 per cent for phases 1 and 2 respectively); and the ability to save regularly out of one's income (53 per cent).

¹³The reader's attention is drawn to note 2 of Table 5.7 on whether or not one can meaningfully talk of an enforced lack of debt poverty.

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The figures in Table 5.7 also suggest that there is a substantial degree of stability in the extent to which non-farm households in aggregate experienced an "enforced lack" of items at each round of the survey. Appropriately similar percentages of households experienced an enforced lack of almost all items in both 1987 and 1989.¹⁴ This stability is particularly true of the items in the primary deprivation as well as housing & household capital indices. Some slightly greater degree of fluctuation is evident as regards several of the items in the secondary deprivation index. These include: a daily newspaper (13 per cent in 1987 compared with 19 per cent in 1989); a telephone (33 per cent compared with 23 per cent) and a holiday or leisure activity (11 per cent compared with 17 per cent).

Such figures as these relate to the aggregate situation among all non-farm households at two points in time (*viz* 1987 and 1989). They say nothing of the degree of fluctuation or change in the experience of the individual household over the study period. Figures in the last four columns of Table 5.7 provide some insight into the extent of change at the level of the individual household. For example, one can see that 85 per cent of households said at both rounds of interviewing that they had a meal with meat, chicken or fish at least every second day; a further 4 per cent said they did in 1987 (phase 1) but said they lacked this item in 1989 (phase 2); 7 per cent said they lacked the item in phase 1 but possessed it in phase 2 and the remaining 4 per cent said they lacked the item at both rounds of interviewing. The reader should note that these last four columns of the table refer to the possession or lack of each of the items in question. They do not contain any information on the extent of fluctuations in "enforced" lack of the items.

¹⁴In almost all cases such differences as exist in these cross-sectional percentages can be attributed to sampling variances.

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Table 5.7: Distributions of Resource-Based Indicators of Deprivation Among Non-Farm Households

		Enforced lack		Has Ph 1	Has Ph 1	lacks Ph 1	lacks Ph 1
	Necessity ⁽¹⁾	Phase 1	Phase 2	Has Ph 2	lacks Ph 2	Has Ph 2	lacks Ph 2
	Percentage of Households						
Primary Deprivation							
Meal with meat, chicken or fish every second day	84	8	7	84.7	3.7	7.5	4.1
Warm, waterproof coat	95	8	8	81.0	6.9	8.3	3.9
Two pairs of strong shoes	88	12	11	76.2	6.7	10.4	6.7
Roast joint of meat once a week	59	14	13	66.8	8.9	15.5	8.8
New (not secondhand) clothes	80	8	10	82.6	8.5	6.3	2.7
Food poverty ⁽²⁾	-	4	6	-	-	-	-
Debt poverty ⁽²⁾	-	14	20	-	-	-	-
Secondary Deprivation							
Week's annual holiday	53	48	51	25.5	11.4	9.5	53.6
To be able to save regularly	86	53	53	27.5	17.1	14.9	40.5
A daily newspaper	42	13	19	55.0	8.1	9.3	27.5
Telephone	42	33	23	49.9	1.5	11.4	37.2
Hobby or leisure activity	77	11	17	57.7	16.6	10.3	15.4
Central heating	50	28	25	53.6	6.4	9.2	30.8
Car	51	25	20	57.2	3.5	5.5	33.8
Presents for family or friends once a year	61	14	16	69.5	8.3	10.8	11.3
Housing & Household Capital Deprivation							
Bath or shower	98	5	4	93.7	0.6	1.1	4.5
Indoor toilet	98	3	2	96.0	0.5	0.7	2.8
Washing machine	82	9	8	77.8	3.7	5.0	13.5
Refrigerator	93	2	1	95.0	0.7	2.4	2.0
Colour TV	40	9	6	81.7	3.4	6.3	8.6
Dry, damp-free dwelling	100	7	7	87.9	4.2	5.1	2.9
Heating for the living room when it is cold	100	2	2	96.1	1.6	2.2	0.1

⁽¹⁾ Although this information was collected from all households in phase 1 of the survey it is reported here only in respect of the reweighted phase 2 subsample of 767 non-farm households.

⁽²⁾ Details on food and debt poverty were collected in a different fashion to the other twenty items in the table. For this reason figures on "necessity" are not available. "Enforced lack" at each round of interviewing should be interpreted as relating to the experience of the two items in question. The issue of voluntary choice, or enforcement due to financial constraint does not enter into deprivation as measured by these two items.

In general, it is clear that at the household level there is a high degree of stability in terms of possession of the items in phases 1 and 2. This is particularly so in respect of the primary as well as the housing & household capital deprivation indices. Furthermore, only small percentages of non-farm households (usually less than 5 per cent) lack the items at *both* rounds of interview (ie in 1987 and 1989). The only major exception to this is the washing machine which 13 per cent of households lack at both rounds of interviewing. For obvious reasons the least fluctuation as between one round and another is in respect of those items on the housing & household capital deprivation index. In general, a household either possesses or lacks these items (four of which are fixed features) at *both* rounds of interviewing.¹⁵

The pattern of possession or lack of individual items on the secondary deprivation index at each round of interviewing is clearly quite different. Not only does a much higher percentage of households experience a lack of the items on this index at both rounds of interview but, in general, there is also a higher percentage of households whose possession or lack of individual items seems to change as between one round and the other. For example, over 17 per cent of households say they are able to save regularly in phase 1 but are not able to do so in phase 2. In contrast 15 per cent of households said they could not save regularly at the first round of interviewing but said they could at the second round. The instability shown in terms of possession or lack of the items included in the secondary index may

¹⁵One apparent anomaly in the data is the percentage of households which possessed central heating in phase 1 but which said they did not possess it by phase 2 (6 per cent of non-farm households). It is unlikely that a household which had central heating in 1987 would have it removed by 1989. Some of this apparent anomaly may be explained by households changing dwelling over the study period, moving from a house which had central heating to one which had not. It is also feasible that some of the discrepancy may be attributable to a misinterpretation of the question. Some respondents may have thought they were being asked whether or not they were currently (at the time of interview) using their central heating:

reflect the greater degree of subjectivity involved in some of these items. This is particularly true, for example, of items such as "being able to save regularly" or "having a hobby or leisure activity".

Although an examination of the individual items gives one a feel for the way in which the aggregate indices have been constructed it is important to note that our interest does not lie with the possession or lack (enforced or otherwise) of any of the items in its own right. As Callan *et al* note the items are relevant only in the extent to which they are indicative of underlying and generalised deprivation:

The set of items measured are intended to serve as indicators of pervasive exclusion from ordinary living patterns ... which is the latent or underlying variable one is trying to measure (1993:157).

In the remainder of the chapter, therefore, we shall focus on the aggregate indices as deprivation proxies.

Table 5.8 presents some details on the three indices at both points of interview and changes therein over the study period. From this one can see that there is only minor movement in the aggregate average of the seven-item primary and seven-item housing & household capital indices between the two rounds of interviewing. For example, the average on the primary index goes from 0.69 for all non-farm households in 1987 to 0.75 in 1989. The average for the housing & household capital index fell slightly over the same period from 0.37 to 0.29.¹⁶ The average on the eight-item secondary index is the same at both rounds of interviewing.

¹⁶It is worth noting in passing that some of the fall in the average score on the housing & household deprivation index is attributable to the exclusion of newly generated households from the analysis (see Chapter 2, section 2.5). Given that one is looking at the dynamic aspects of a stock of the population rather than at a longitudinal population in strict flow concept terms, life-cycle effects and associated accumulation of household capital goods are being reflected in the fall in the average level of the housing & household capital index.

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Table 5.8: Changes in Deprivation Indices 1987-1989

	7-item Primary Deprivation Index	8-item Secondary Deprivation Index	7-item Housing & Household Capital Deprivation Index
Average Level Phase 1	0.69	2.19	0.37
Average Level Phase 2	0.75	2.19	0.29
Change in Score Phase 1/Phase 2	Per Cent of Households		
Deteriorate by 2+	8.8	17.1	1.5
Deteriorate by 1	15.1	17.7	8.9
Same	55.7	31.1	75.2
Improve by 1	12.1	17.6	10.3
Improve by 2+	8.3	16.5	4.2
Total	100.0	100.0	100.0

The figures in the bottom half of Table 5.8 provide information on the extent to which individual households experience change in the three deprivation indices over the study period. When one compares the three indices it is clear that the greatest degree of stability is in the housing & household capital index. A total of 75 per cent of individual households maintain the same score on this index in phase 2' as compared with their situation in phase 1. A further 10 per cent of non-farm households experience a deterioration over the study period while the remaining 14 per cent of households experience an improvement. In other words, the dominant trend' in this index is stability or improvement over the period 1987-1989. If one considers the seven-item primary deprivation index it is clear' that there is a much lower degree of stability over the period in question. A total of 56 per cent of households have the same score on this index in phase 2 as in phase 1' while 24 per cent experience a deterioration and just over 20 per cent an improvement. The secondary deprivation index shows greatest fluctuation. Just under one-third of non-farm households have the same score on this index at both rounds of

interviewing while approximately equal proportions of the remainder experience improvement or deterioration. These trends in stability or otherwise of the indices are much as one would expect in view of the interpretation given to the three scales in section 5.3 above.

A further point to note in relation to changes in households' scores on these indices is the extent to which households which experience a deterioration in their position as between phases 1 and 2 are being replaced, in like number, by those which experience an improvement in their position. This is particularly true of the secondary index and, to a slightly lesser degree, the primary index. For example, one can see that 18 per cent of non-farm households experience a deterioration by 1 point on the secondary index over the period in question compared with the 18 per cent which experience an improvement of the same order of magnitude. Furthermore, 17 per cent experience deterioration of two points or more compared with 16 per cent which experience an improvement of two points or more. This replacement of those whose position is deteriorating in terms of these indices by those whose position is improving clearly indicates a dynamic in resource-based indicators of deprivation over time.

Table 5.9 presents details on the interrelationship of the deprivation indices. From the table one can see that at both rounds of interviewing a household's score on the seven-item primary index is relatively strongly correlated with its score on the eight-item secondary index (0.54 and 0.62 in phases 1 and 2 respectively). The relationship between the primary index and housing & household capital index is weaker (0.38 and 0.23 at each round of interviewing)..This latter index (housing & household capital) displays a similar relationship with the eight-item secondary deprivation indicator, having a correlation coefficient of 0.3 at both rounds of interviewing.

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Table 5.9 also contains information on the strength of the relationship between the three deprivation indices and household equivalent income. Two measures of the latter are considered. First, information is presented on the correlation between deprivation and *continuous* household income. Secondly, we present details on the relationship between the household's equivalent income decile and each of the deprivation indices. The household's income decile is determined by ranking all households in terms of eqUivalent income. The population is then divided into 10 equal groups, each containing 10 per cent of households. The lowest decile contains the 10 per cent of households in the lowest income category, the second decile contains the 10 per cent of households in the next income group and so on.

From the table it can be seen that the eight-item secondary deprivation score is most strongly related to equivalent household income, haVing a correlation coefficient of -0.47 in phase 1 and -0.51 in phase 2. The seven-item primary index has a coefficient in the region of -0.33 at both rounds of interviewing and the housing & household capital index has the lowest coefficient, -0.20 at both rounds of the survey. It can also be seen from the table that by using eqUivalent income decile, rather than eqUivalent income *per se*, the measured relationships increase in respect of each of the three deprivation indices at both rounds of interviewing. For example, in phase 2 when the eight-item secondary deprivation index is correlated against income decile (as compared to *continuous* income) the correlation coefficient rises from -0.51 to -0.58. Similarly, when the seven-item primary index is correlated with income decile rather than actual equivalent income the coefficient rises from -0.36 to -0.47.

In interpreting these figures it may seem counter-intuitive that the secondary deprivation index is more strongly related to equivalent income (measured on both a continuous and decile basis) than is the primary index. The explanation for this may be found in the

composition of the two indices. The items on the primary index can be considered as essentials. Even when income falls the household must take some action (possibly through borrowing from family or friends etc) to ensure that they do not experience any major deterioration according to this deprivation scale. The situation with items in the secondary index is slightly different. It is obvious that the composition of this group is such that none of the items is as essential to the household as those on the primary deprivation index. Because of this, the secondary index is more sensitive to income than is the primary deprivation scale.

Table 5.9: Correlation of Deprivation Indices and Equivalent Income Among Non-Farm Households.

	Phase One			Phase Two		
	7-item Primary Deprivation Index	8-item Secondary Deprivation Index	7-item Housing Deprivation Index	7-item Primary Deprivation Index	8-item Secondary Deprivation Index	7-item Housing Deprivation Index
7-item Primary	1.00			1.00		
8-item Secondary	0.54**	1.00		0.62**	1.00	
7-item Housing & Household Capital	0.38**	0.31 **	1.00	0.23**	0.30**	1.00
Equivalent Income ⁽¹⁾	-0.33**	-0.47**	-0.19**	-0.36**	-0.51 **	-0.20**
Decile Equivalent Income	-0.41 **	-0.52**	-0.22**	-0.47**	-0.58**	-0.26**

Notes: **Significant at 99 per cent or above.

(1) Equivalence weights: head of household 1.0; other adult 0.7; child(ren) 0.5; Equivalised phase1 and phase2 income was used as appropriate.

5.5 Combined Relative Income and Deprivation Thresholds

As noted in section 5.3, Ringen (1987) observes that an analysis of poverty based solely on income (or relative income) may be deficient in a number of ways. People could avoid a life of deprivation which would result from a short-term fall in income by living off their accumulated assets, savings etc. Secondly, income by

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its nature is susceptible to short-term volatility which may make it an unstable proxy for poverty when examined in isolation. To overcome these problems it may seem initially attractive to rely more heavily on non-monetary indicators of poverty. Relying solely on such indicators, however, could be equally misleading as people may live as if they were poor even though they are not. In other words, they may have opted for their apparently impoverished lifestyle as a matter of choice rather than necessity. With this in mind Ringen states:

We need to establish not only that people live as if they were poor but that they do so because they do not have the means to avoid it (0987:162).

To address the issue of financial and non-financial deprivation in a single, composite measure we present some findings on the extent of poverty status and changes therein using a poverty threshold which is based on a combination of relative income and the seven-item primary deprivation index discussed in the previous section.

Table 5.10 presents details on the percentage of non-farm households at each phase of interviewing (ie 1987 and 1989) which fall below a series of combined relative income and resource deprivation thresholds. The table provides information on the extent of poverty at the 40%, 50% and 60% relative income thresholds combined with two indicators of resource deprivation viz a score of two or more on the seven-item primary deprivation index as well as a score of one or more on the same scale. From the table one can see that in 1987 (phase 1) a total of 3 per cent of non-farm households were in poverty below a combined poverty threshold based on the dual criteria of 40% relative income *and* a score of two or more on the seven-item primary deprivation index. This compares with a figure of 5 per cent in phase 2 using the same line. As the level of the relative income component of the combined line is raised

from 40% the percentage of households in poverty increases. When the resource-deprivation component of the poverty criterion is changed to involve a score of one or more on the primary deprivation score (as compared with a score of two or more) the percentage of households below the combined line increases. For example, the 3 and 5 per cent of households in poverty in phases 1 and 2 respectively, using a score of two or more on the primary deprivation index, increases to 4 and 6 per cent respectively when a primary deprivation score of one or more is used in conjunction with a 40% relative income line. Although the data suggest that there has been a marginal increase in the extent of poverty (as defined in this manner) over the period 1987-1989 the reader should note that some of the inter-wave differences may be attributable to sampling variances.

The figures presented in Table 5.10 give cross-sectional "snapshots" of the extent of poverty at two points in time and so can provide a measure of the *net* change in poverty levels. The question which we must now ask is how these changes are reflected over time at the level of the individual household?

As discussed in detail in Chapters 2 and 4, we can have a higher degree of statistical confidence in changes in poverty status over time among those households which were in relative income poverty in phase 1 than those which were not. This is related to the sampling strategy adopted for phase 2 of the survey.¹⁷ As a consequence of this we can talk with greater certainty about the extent to which households *escaped* from poverty over the study period than we can about those which *fell into* poverty or those which did not fall below the poverty line *at either round of interviewing*. We will, therefore, firstly consider poverty escape rates based on the combined relative income/deprivation lines outlined in Table 5.10.

¹⁷See Chapter Two, section 2.2 for a discussion of sample selection strategy in phase 2.

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Table 5.10: Percentage of Non-Farm Households in Phase1 and Phase2 Below a Combined Relative Income and Resource Deprivation Poverty Threshold

	Phase 1 (1987)		Phase 2 (1989)	
	2+ on 7-item Primary Deprivation	1+ on 7-item Primary Deprivation	2+ on 7-item Primary Deprivation	1+ on 7-item Primary Deprivation
	Per Cent			
40%	3.1	4.4	4.9	5.9
50%	6.6	10.3	8.7	11.9
60%	9.7	15.2	12.4	18.8

Equivalence scale used: head of household 1.0; other adults 0.7; child(ren) 0.5.

Table 5.11 presents details on escape rates among non-farm households using the combined relative income and resource-based poverty thresholds. By definition the table is based only on the subset of households in the sample which were in poverty at phase 1 of the survey. Because of this the numbers involved (particularly at the 40% line) are small. If one concentrates on the 50% and 60% lines combined with a score of two or more on the seven-item primary index one can see that 43 per cent and 38 per cent of households escaped from poverty over the study period. One can change the definition of poverty at both points of interview by drawing a combined threshold based on the respective relative income lines and a score of 1 or more on the primary deprivation index. It is clear from the table that the effect of this is a reduction in the escape rate of the order of seven percentage points.

One should obviously ask whether or not a score of 1+ or of 2+ on the primary deprivation index (in conjunction with relative income poverty) should be taken as the touchstone of impoverishment. There is no definitive answer to the question, just as there is no definitive answer as to which relative income line or set of equivalence weights one should choose. Clearly, the results must be

interpreted within the context of their derivation. Callan *et al* note, however, that:

Given the way in which the basic index has been constructed - the nature of the items themselves, the fact that the factor analysis showed that they cluster together, and that an income criterion is also to be applied, we would argue that even a score of one on that index is likely to indicate generalised deprivation (1993:157).

Table 5.11: Poverty Escapes Among Non-Farm Households Using a Combined Relative Income and Resource-Based Poverty Threshold

	40% Relative Income Line		50% Relative Income Line		60% Relative Income Line	
	2+ on 7-item Primary Index	1+ on 7-item Primary Index	2+ on 7-item Primary Index	1+ on 7-item Primary Index	2+ on 7-item Primary Index	1+ on 7-item Primary Index
Escaped from poverty	54.6	51.5	42.9	36.0	38.1	30.6
Still in poverty	45.4	48.5	57.1	64.0	61.9	69.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
(Weighted N)	(22)	(33)	(49)	(75)	(71)	(111)
Phase 1 poverty level	3.1	4.4	6.6	10.3	9.7	15.2

Interpretation: The poverty threshold at both rounds of interviewing is based on a combination of relative income and scores on the seven-item primary deprivation index. Results based on two combined lines are presented *viz* (i) relative income and a score of 2+ on the primary deprivation index and (ii) relative income and a score of 1+ on the primary deprivation index. On this basis, for example, 54.6 per cent of households which were in poverty at phase 1 (as measured by a 40% relative line combined with a score of 2+ on the seven-item primary deprivation index) had escaped from poverty by phase 2. Further, 51.5 per cent of households which were in poverty at phase 1 (as measured by the 40% relative line combined with a score of 1+ on the seven-item primary deprivation index) had escaped from poverty by phase 2. The equivalence weights used in deriving the relative income lines are: head of household 1.0; other adults 0.7; child(ren) 0.5.

By definition this table is based only on the subset of non-farm households which were in poverty (as measured by the appropriate relative income and primary deprivation score) in phase 1 of the survey. As a consequence the number of cases upon which the table is based, particularly the figures relative to the 40% and 50% relative income levels, is relatively small.

It is important that one does not allow a debate on the relative merits or otherwise of definitional criteria to obscure the relevance of the figures presented in Table 5.11. The most important point to emerge from the information contained in that table is that a relatively large percentage of those in poverty when interviewed in 1987 had escaped by the point of second interview in 1989. We saw from Table 4.5a in Chapter 4 that when we based the poverty threshold at a 50% relative line in both phases 1 and 2 approximately 38 per cent of non-farm households escaped from poverty over the study period. Using a combined 50% relative line and a score of 1+ on the primary deprivation index we find that 36 per cent of non-farm households which were in poverty in phase 1 had escaped by phase 2. The critical issue arising from these figures is not the definition of poverty escapes, nor indeed even the absolute *level* of escape *per se*. It is rather the clear and incontrovertible fact that large proportions of the poor do escape - possibly in the short-term. As noted at several points throughout the report this dynamic has obvious implications for policy responses.

One can extend an examination of poverty escapes to a consideration of changes in the poverty status of *all* non-farm households over the study period, ie not just those which were in poverty in phase 1. With a two-phase study period we can consider a fourfold classification of changes in poverty status as follows: (i) no poverty in either phase 1 or phase 2; (ii) no poverty in phase 1/poverty in phase 2; (iii) poverty in phase 1/no poverty in phase 2; and (iv) poverty in phases 1 and 2.¹⁸

¹⁸Because we are dealing here only with observations at two points in time we cannot make any comments on the length of poverty spell. Neither can we make any inferences about the relativities between long- and short-term poverty incidence. The most we can say is whether or not a household is above or below the poverty threshold at each round of interviewing. The fact that a household was in poverty when interviewed in phase 1 and had escaped from poverty 18 months later (by phase 2) does not, of itself, indicate that it experienced a "short-term" poverty spell. The household may well have been in poverty for many years before the point of first interview.

Table 5.12 presents details on changes in poverty status among non-farm households over the study period using the 60% relative poverty line combined with the primary deprivation score.¹⁹ When one considers the combined 60% relative income line and a score of 2+ on the seven-item primary deprivation index, one can see that 84 per cent of households did not experience poverty at either round of interviewing; 6 per cent fell into poverty between phases 1 and 2; 4 per cent escaped from poverty over the study period and the remaining 6 per cent were in poverty at both rounds of the survey. Comparable figures for the combined 60% relative income line and a score of 1+ on the primary index are 76 per cent; 8 per cent; 5 per cent; and 11 per cent.

Table 5.12: Changes in Poverty Status Among Non-Farm Households Between Phases 1 and 2

Category	Score of 2+ on 7-item Primary Index 60% Relative Income Line		Score of 1+ on 7-item Primary Index 60% Relative Income Line	
	%	(Wgt'd N)	%	(Wgt'd N)
No Poverty Phase 1 or Phase 2	83.9	(613)	76.5	(559)
No Poverty Phase 1/Poverty Phase 2	6.4	(47)	8.3	(61)
Poverty Phase 1/No Poverty Phase 2	3.7	(27)	4.7	(34)
Poverty Phase 1 & Poverty Phase 2	6.0	(44)	10.5	(77)
Total (Wgt'd N)	100.0	(731)	100.0	(731)

What can one say of the characteristics of the households in each of the four categories? Table 5.13 presents details on the relationship between changes in employment status of household head over the study period and associated changes in poverty status. Although the number of cases involved in certain cells in

190ne is prevented from examining poverty transition rates based on the 40% and 50% relative lines (combined with the primary deprivation scores) due to the small number of cases in some of the four categories outlined in Table 5.12 at these thresholds.

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the table is particularly small, a few tentative observations can be made. As one would expect these are wholly consistent with those made in relation to Table 4.7 of Chapter 4 above.

First, one can see that a total of 58 per cent of households which do not experience poverty at either round of the survey were headed by someone who was in employment at both points of interview. This compares with 19 per cent of those which escaped from poverty and 7 per cent of those which were in poverty in both 1987 and 1989.

Table 5.13: Non-Farm Households Classified by Changes in Poverty Status(1) and Changes in the Employment Status of Household Head Between Phase 1 and 2

Phase 1 Phase 2	Employed Employed	Employed Unemployed	Unemployed Employed	Unemployed Unemployed	Residual Labour Force Transitions(2)	Total	(N)
Per Cent of Households							
No Poverty Phase 1 or Phase 2	58.0	2.2	2.1	2.2	35.5	100.0	(559)
No Poverty Phase 1/ Poverty Phase 2	16.5	4.9	8.8	21.7	48.1	100.0	(61)
Poverty Phase 1/ No Poverty Phase 2	19.4	1.6	16.0	8.5	54.5	100.0	(34)
Poverty Phase 1 & Phase 2	7.1	10.1	3.4	47.0	32.4	100.0	(77)
Total	47.4	3.2	3.4	8.8	37.2	100.0	(731)

¹⁹ Poverty status is based on a combined 60% relative income and score of 1+ on the seven-item primary deprivation index in both phases 1 and 2. The equivalence weights used in determining the relative income line are head of household 1.0; other adults 0.7; child(ren) 0.5.

²⁰ Includes five labour force transition categories as follows: (a) employed to "other"; (b) unemployed to "other"; (c) "other" to employed; (d) "other" to unemployed; (e) "other" to "other". This fifth category accounts for approximately 90 per cent of the transitions in the residual group. "Other" labour force status includes, retired; home duties; unable to work due to illness etc.

Secondly, a total of 5 per cent of households which fell into poverty over the study period were headed by someone who went from an employed to an unemployed status. This compares with just under 2 per cent of households which escaped from poverty and 2 per cent of those which did not experience poverty in either 1987 or 1989. It is interesting to note that just over 10 per cent of households which experienced poverty at both points of interview were headed by someone who went from an employed to an unemployed state. This is twice the figure for households which fell into poverty over the period in question.²⁰

Thirdly, 16 per cent of households which escaped from poverty over the study period were headed by someone whose employment status went from unemployed to employed. This compares with 2 per cent of households which did not experience poverty at either point of interview; 3 per cent of those which were in poverty at both rounds of the survey and 9 per cent of those which did not fall below the poverty threshold at either point of interviewing.

Finally, the data clearly show that almost 50 per cent of households which were experiencing poverty at both points of interview were headed by someone who was unemployed in both 1987 and 1989. Comparable figures for those who fell into poverty were 22 per cent; 9 per cent for households which escaped and 2 per cent for those which did not experience poverty at either point of interview.

It would obviously be desirable to extend this analysis further. Unfortunately sample size in phase 2 of the research does not allow one to do so. The trends in the data shown in Table 5.13 confirm those identified in earlier chapters of this report and once again point to the clearly established link between changes in labour market situation of household head and poverty status.

²⁰The authors recognise that this may to some extent be related to the small number of cases involved.

5.6 Summary

In this chapter we provided some insights into new ways of looking at poverty and poverty dynamics using a combination of material deprivation indicators and conventional relative income measures. The seminal work on resource deprivation was Townsend (1979) which related household income to a score on a summary deprivation index. By doing this he was able to identify a poverty threshold in the income distribution on the basis of access to material resources. This early work was developed by Mack and Lansley (1985) who attempted to define poverty solely in terms of access to resources and the extent to which people experience an enforced lack of socially perceived necessities.

More recently, substantial developments in resource-based measures of poverty and deprivation have been made using data from phase 1 of the ESRI survey on Lifestyles and Usage of State Services. Whelan *et al* (1991) and Callan *et al* (1993) identified an eight-item primary index of deprivation; an eight-item index of secondary deprivation and a seven-item index of housing & household capital deprivation. By combining relative income measures of poverty with scores on the primary index of deprivation they were able to construct a new series of poverty lines which should allow one "... to establish not only that people live as if they were poor but that they do so because they do not have the means to avoid it" (Ringen, 1987:162). By building on this methodology in the current chapter we were able to examine the degree of fluctuation in these deprivation indices in the short-term and to quantify the extent of poverty dynamics on the basis of a combined relative income/material deprivation threshold.

In examining the fluctuation in scores on each of the three deprivation indices we found, not surprisingly, that a seven-item housing & household capital index showed greatest stability at the individual household level over the study period. Just over 75 per cent of

households had the same score on this scale in phase 2 as in phase 1. In the case of a seven-item primary deprivation indicator we found that 56 per cent of households had not changed their score over the period 1987-1989. This compares with only 31 per cent of non-farm households which had the same score on the secondary deprivation index in phase 2 as in phase 1.

In terms of the extent of poverty as measured by the combined relative income and deprivation index we noted that 12 per cent of households were in poverty at phase 2 of the research using a threshold based on the 50% line combined with a score of 1+ on the seven-item primary deprivation index. Comparable figures for the combined line based on the 40% and 60% levels are 6 per cent and 19 per cent respectively. When the data were used in a strictly longitudinal sense we found that 36 per cent of households which were in poverty in phase 1 had escaped by phase 2 when one used a combined line based on 50% of relative income and a score of 1+ on the seven-item primary deprivation index. This compares with an escape rate of 51 per cent and 31 per cent using the 40% and 60% relative lines combined with the same deprivation score.

When we examined the degree of change in poverty status among all non-farm households between phases 1 and 2 using a 60% relative income line combined with a primary deprivation score of one or more we found that just over three-quarters of households had not experienced poverty at either round of the survey. A further 8 per cent had fallen into poverty over the study period; 5 per cent had escaped and 10 per cent were in poverty at both points of interview.²¹ These figures on poverty transition rates based on the combined relative income and deprivation lines clearly underline a strong dynamic element in poverty status. Finally, we noted the strong relationship between change in household poverty status and change in employment status of household head. Overall, the direction of this relationship was as one would expect.

CHAPTER 6

Poverty Transitions: Results from a Five-Country Comparative Database

6. Introduction

In the previous three chapters we examined the main findings from the international literature on income mobility and poverty dynamics. We discussed at length differences in poverty durations as well as annual and longer term escape rates. We highlighted similarities and differences in these findings as between one country and another as well as between one period and another within individual countries (notably the early and late 1970s in the United States where we have evidence from the long-running Panel Survey of Income Dynamics). In none of the literature cited, however, were we able to make direct cross-national comparisons of trends in poverty dynamics for a single reference period or using a common set of definitions. For example, in Chapter 3 we compared and contrasted income mobility in the United States over the period 1971-1978 with that in Sweden over the period 1973-1980. In Chapter 4 we discussed annual poverty escape rates in the United States over the period 1969-1978 along with similar analyses for the Netherlands covering the period 1986-1988.

Although such comparisons are interesting and worthwhile, notwithstanding the conceptual, definitional and temporal differences involved, it would clearly be preferable to undertake a comparative analysis of data which relate to a common time period and which share common definitions across countries. The major problem in carrying out this sort of analysis is the lack of directly comparable longitudinal datasets which have been in operation for a sufficiently long period of time as to allow us to identify systematic trends in poverty dynamics. As noted in Chapter 1, panel-based surveys are still very much in their infancy in Europe. Those which do exist were set up to meet national requirements and have not, as yet, been coordinated at a European, or other supranational level.¹ As a direct consequence of this any international comparison of poverty dynamics is fraught with difficulties.

¹ Eurostat is currently undertaking a pilot project aimed at setting up a pan-European household panel using a harmonised questionnaire throughout the EC-12

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In an effort to redress this situation the European Commission undertook a project under Poverty II (the Second European Action programme to Combat Poverty) which had five specific research objectives as follows: (i) the enumeration (in a comparable fashion) throughout the community of the number of poor households in each country along with their socio-demographic profiles; (ii) an assessment of the adequacy of social security in terms of providing a minimum level of income; (iii) the incorporation of a standardised system of social indicators; (iv) the development and evaluation of poverty measures; and (v) the distinction between temporary and long-term poverty using longitudinal or panel-based survey techniques. The fifth of these objectives is the most relevant in the context of poverty dynamics and changes in poverty status. The result of the Poverty II initiative is directly comparable data for five countries over largely similar study periods in the mid- to late-1980s as follows: (a) Belgium 1985-1988; (b) The Netherlands 1985-1986; (c) Luxembourg 1985-1986; (d) Lorraine Region in France 1985-1986; and (e) Ireland 1987-1989. The findings were published in Deleeck *et al* (1992),² hereafter referred to as the Deleeck report.

6.1 A Comparative Five-Country Database

The sections on poverty dynamics in the Deleeck report focus on the changing poverty status of households across two waves of interviewing cross-classified by several socio-demographic characteristics of the household head in the first wave. The authors note that in some instances the sample size is relatively small.³ This obviously hmlts the extent of inter-wave cross-classification. The reader should also note that the Irish data are restricted to non-farm households and change in their poverty status over the two waves. As discussed in

² For a full discussion of the background, concepts and data definitions used in the Poverty II initiative see Deleeck *et al* (1992). The remainder of this chapter draws heavily on the results presented in that report.

³ Reweighted sample size in each of the five countries is as follows: Belgium 3,035; Netherlands 2,712; Luxembourg 1,761; Lorraine 607 and Ireland 767.

Chapter 2 (section 2.4) of the current report farm incomes in Ireland over the 1980s were subject to very substantial fluctuations from one year to the next. In view of these large swings in their income the inclusion of farm households in a general analysis of poverty transitions would result in artificially inflated figures on poverty escape rates.

It is all the more important to exclude farm households from the Irish data in an international comparison in view of the greater relative importance of agriculture to the economy in Ireland than in any of the other four countries concerned. Table 6.1 shows the relative importance of the sector to each of the five countries covered by the Deleeck report. From this one can see that the level of agricultural employment in Ireland is just over twice the EC average and is substantially higher than the other four countries considered by Deleeck. The fact that the figures for the other four countries include the farming sector clearly introduces some inconsistency in the comparative base. None the less, this seems preferable to the inclusion of the sector in the Irish figures, given the problems associated with instability of Irish farm incomes over the study period.

Table 6.1: Percentage of Those at Work Engaged in Agriculture in 1989

% in Agriculture		% in Agriculture	
Belgium	3.3	France	6.9
Netherlands	4.8	Ireland	15.5
Luxembourg	3.9	EC-12	7.1

Source: After Table 29, *Labour Force Survey*, 1989 (Eurastat, December 1990).

6.2 Poverty Escapes - Some International Comparisons

Table 6.2 presents details on the percentage of households which were in poverty in phase 1 and which were still in poverty in phase 2. The poverty transition figures are based on an EC poverty standard

Poverty Transitions: Results from a Five-Country Comparative Database

which is equivalent to the 50% relative poverty line using equivalence weights of 1.0 for household head, 0.7 for other adult and 0.5 for children. The definition used for poverty transition is a movement from a position below the EC-standard line at phase 1 to a position above the same line at phase 2. This is directly analogous to the less rigorous definition of a poverty escape used in Chapter 4 of this report. In interpreting the following it should be borne in mind that one implication of using relative poverty lines in this type of dynamic context is that a fall in the level of the line during the period between the two points of interview (as happened in some countries) could suggest an apparent change in poverty status without there being a change in the household's circumstances. The corollary of this, of course, is that the level of escapes will be artificially depressed in countries in which the line has risen in real terms. It is also clear from the table that the reference period differs slightly as between one country and another. This should be borne in mind in interpreting the results as it will to some extent affect transition rates.

Table 6.2: Households Classified by Poverty Rates at Both Rounds of Interviewing and Escape Rates Phase 1 to Phase 2.

	% hsds. in pov Phase 1	% hsds. in pov Phase 2	Escape Rates Ph1 . Ph2
Ireland (1987-1989)	15.3	15.3	38.4
Belgium (1985-1988)	6.1	5.7	58.0
Netherlands (1985-1986)	7.1	7.2	59.4
Lorraine (1985-1986)	9.7	10.8	43.1
Luxembourg (1985-1986)	7.6	7.6	42.9

Source: Irish figures are based on the linked phase 1/phase 2 data set of 767 households. All other figures after Deleeck (1992:132, Table 7.17).

From the data in Table 6.2, we can see that, of the five countries examined, Ireland had by far the highest incidence of household poverty at both rounds of interviewing. For example, over 15 per cent of

households in Ireland were in poverty at both points of interview. This compares with approximately 6 per cent in Belgium, 7 per cent in Holland, 10 per cent in Lorraine and 7.5 per cent in Luxembourg. We can see that Ireland has the lowest level of short-term poverty escape (38 per cent) followed by Lorraine and Luxembourg (each at 43 per cent) and Belgium and the Netherlands (58 and 59 per cent respectively). Overall, these figures suggest a reasonably high level of poverty escape rates, particularly for Belgium and the Netherlands. However, one should note that there are slight differences in the time periods covered by each country. For example, the Belgian figures relate to three-year transition levels (1985-1988) whereas the Dutch figures relate to annual rates. As a consequence of these differences in time periods covered the similarity in escape rates between the Netherlands and Belgium (each of approximately 58 per cent) may be more apparent than real. When these differences in reference period are taken into account the figures in Table 6.2 suggest a relatively lower level of escape rate among poor households in Belgium than in the Netherlands. The Belgian annual rate cannot simply be taken as the third-root of the three-year figure. This would only be the situation if one had complete homogeneity among poor households and, as we saw in Chapter 4, such homogeneity is the exception rather than the rule. Bane and Ellwood (1986) and Hill (1981), for example, highlight the *heterogeneity* of the poor population and the extent to which the heterogeneity of individuals' characteristics and traits largely determine such things as the initial experience of a spell in poverty as well as the duration of that spell.

The apparent differences between the underlying trends in the Dutch and Belgian annual rates may be a function of two quite distinct processes. First, it could suggest that income change in the Netherlands is substantially more rapid than in Belgium. Alternatively it may reflect a trend among some households in Belgium to have fallen back into poverty over the relatively longer study period of three years as compared with one year for the Netherlands. These two

quite different interpretations highlight the difficulty of making any strong statements on poverty dynamics in the absence of a high-quality longitudinal dataset which is sufficiently long as to ensure that one has "captured" a large proportion of completed poverty spells.

A further point to emerge from the data in Table 6.2 is a negative relationship between poverty incidence and escape rates. In other words, the higher the initial incidence level the lower the escape rates. This is consistent with observations by Duncan *et al*⁴ who find:

... a marked inverse relationship between the estimated incidence of poverty and escape rates... Countries and/or poverty thresholds associated with larger fractions of their populations below the poverty line have lower escape rates (1991:9).

6.3 Poverty Transitions for All Households:

Some International Comparisons

Although looking at poverty escapes in isolation is interesting, a more complete picture of poverty dynamics is clearly desirable. This is provided by Table 6.3 which considers changes in poverty status for the totality of households in each of the five countries in question.

The figures show that the percentage of households which did not experience poverty at either round of the survey varies from just below 80 per cent for Ireland to just over 90 per cent for the Netherlands and Belgium. Although sample size is small (notably in the case of Lorraine and Ireland) we can see that, at the 50%-50% line

⁴ The Duncan *et al* study provides a comparative analysis of escape rates in six different countries among various subgroups of the population. The lines used are based on *median* not *mean* income. Poverty escapes are defined as a movement from a position below the 50% median line in period (t) to a point above the 60% median line in period (t + 1). Data are also presented in respect of movements relative to the US absolute poverty threshold. Neither line is comparable to the equivalised relative mean income lines reported throughout this report. On this basis the results are not discussed in this chapter.

adopted in the table, 3-6 per cent of the households fell into poverty over the relevant study periods. This was highest in the case of Ireland (6 per cent of households) followed by Lorraine (4 per cent), Belgium and Netherlands (each approximately 3.5 per cent) and lowest in the case of Luxembourg (3 per cent).

Table 6.3: Poverty Transitions Among All Households Using EC-Standard Line⁽¹⁾

	Ireland ⁽²⁾ (1987-1989)	Belgium (1985-1988)	Netherlands (1985-1986)	Lorraine (1985-1988)	Luxembourg (1985-1986)
No Poverty Phase 1/ No Poverty Phase 2	78.9	90.9	90.2	85.2	89.3
No Poverty Phase 1/ Poverty Phase 2	5.9	3.5	3.4	4.1	3.0
Poverty Phase 1/ No Poverty Phase 2	5.9	3.3	3.9	4.6	3.3
Poverty Phase 1/ Poverty Phase 2	9.4	2.4	2.6	6.1	4.4

⁽¹⁾ 50% relative poverty line based on equivalised income using equivalence weights of 1.0, 0.7, 0.5 for HoH, Other Adult and Child(ren) respectively.

⁽²⁾ The Irish figures are taken from the most recent version of linked phase 1/phase 2 dataset of 767 cases based on Irish panel survey.

Source: After Deleeck (1992), Appendix Table A.

As noted in our discussion of Irish figures in Chapter 4, it is clear from Table 6.3 that in each of the five countries considered the percentages of those escaping from poverty over the relevant study periods is matched (almost on a one-to-one basis) by those who fell into poverty.; The

; The reader should note that in Chapter 4 we presented poverty transition figures for non-farm households in Ireland only at the 60%-60% level as we are somewhat concerned at the relatively small number of households involved in some of the poverty transition categories at, for example, the 40%-40% or 50%-50% levels.

sample numbers are small. None the less, the story told by the data clearly suggest the dynamic nature of the poverty problem. They also give some insight into why a static, structural approach to poverty has been implicit in much research and policy thinking in the area over the years. Although one is dealing only with observations at two points in time in respect of each of the five countries listed, one can see that the net level of poverty incidence in each of the five countries will be largely the same at both points of observation given the extent to which those who escape from poverty are being replaced by approximately similar proportions over the relevant study periods. This consistency between rows two and three in respect of each of the five countries should provide the incentive to reconsider our hitherto static perspective on poverty status.

The final row in Table 6.3 outlines the percentage of all households which were in poverty at both rounds of interviewing in each of the five member states. This varies from a high of 9.4 per cent in Ireland to 2.4 per cent in Belgium. The proportion of households which were poor at both rounds of interview cannot be definitively interpreted as the extent of long-term or structural poverty any more than the percentage of households which escape from poverty in each of the five countries should be taken as a definitive measure of short-term or cyclical poverty. Issues of left and right censoring of the data seriously limit their interpretation. It is not possible to make any comment on the *duration* of poverty experience. Some of those who have escaped over a two-phase study period may have just ended a very lengthy spell of poverty. For others the experience may have been a short-term aberration in their longer-term poverty status. Under such circumstances the escape of this latter group would simply reflect a return to their more "normal" situation. Because we are dealing only with two-wave study periods in each of the five countries considered we can provide no indication of the length of time a household was in poverty *before* the study period nor of the length of time it

remained in poverty *after* the study period. Furthermore, in the case of those households which appear to have escaped from poverty over the period in question, we do not know whether or not poverty escapes were long- or short-term in nature. It is clearly possible that the escape represented only a short-term "remission" from poverty after which the household once again fell below the relevant poverty line.

6.4 Summary

In this chapter we provided details on poverty transition rates across five Member States of the EC. Although there were slight differences in the study period as between one country and another, the information discussed represents the most detailed and harmonised comparative database in this field yet available in Europe. A number of points emerged as follows.

First, the rate of poverty in Ireland (using a 50% relative income poverty line) was substantially higher in the mid 1980s at both phases of interview than in any of the other four Member States considered. For example, at its most extreme it was just over 2 1/2 times the rate in Belgium. Secondly, the poverty escape rate in Ireland is substantially lower than in any of the other four countries included in our comparison. In Ireland just over 38 per cent of those in poverty in 1987 had escaped by 1989. This compares with 59 per cent for the Netherlands over the period 1985-1986 and 58 per cent for Belgium over the period 1985-1988. In general, we saw that there was a negative relationship between poverty rate and escape rate. This concurs with a study by Duncan *et al* (1991) which, using absolute as well as *median-based* relative income thresholds, identified a similar negative correlation between poverty escape rates and initial level of poverty incidence. Thirdly, when considering poverty transitions among the totality of all households we found that the percentage of households in Ireland which were in poverty at both points of

interview was substantially above the level in each of the other four countries studied. A total of 9 per cent of Irish households were in poverty at both rounds of interviewing compared with, for example, 2 per cent in Belgium and 3 per cent in the Netherlands. Only Lorraine (6 per cent) came close to the Irish figure. Although the numbers are relatively small, the most important point to emerge from a comparative analysis of poverty transitions among all households is the extent to which those which escaped from poverty over the study period in each Member State were being replaced on an almost one-for-one basis by those who were falling below the line over the same period. This replacement of "escapers" has clearly contributed to the generally static perspective often adopted by researchers and policy-maker alike.

The obvious paucity of good quality and comparable information in the area of poverty transitions underlines the difficulties of making strong statements in this area. Such details as exist are based on short runs of data mostly involving only two or three rounds of interviewing. More importantly, many of the studies on poverty transitions are based on relatively small samples. There is a substantial range of theoretical and operational difficulties involved in mounting longitudinal, panel-based studies. None the less such studies are essential if we are to distinguish between long- and short-term poverty or to make any comment on *duration* of poverty spells.

CHAPTER 7

Summary

7 Background and Objectives

In our introduction to Chapter 1 we noted that when someone speaks of the "poor" we usually have very clearly defined stereotypes of whom they are referring to. One aspect of this stereotyping is a common and pervasive misconception that one can talk in terms of a simple, static dichotomy of poor and non-poor households. The implication often seems to be that those in poverty constitute a homogeneous and unchanging stock of individuals who are currently in poverty, who have always been in poverty and whose lot it is to remain in poverty in the future. The reality of the situation is much more complex. For some, poverty may certainly be a long-term, almost permanent state. For others, however, it may be a much more transitory phenomenon. Households or individuals may pass into and out of poverty in response to a variety of events. These events could include, for example, a change in the labour force or employment status of the household head or a change in the number of economically active household members. Our objective in this report has been to assess whether or not short-term movements in income and poverty status are discernible in Ireland and to identify the most important factors underlying such change.

In order to examine the extent to which households move into and out of poverty in the short-term we need to develop a special type of dataset based on longitudinal or panel-survey research. As discussed in Chapter 2, this type of research involves returning to the same set of households over a number of successive years and collecting a consistent record of their views, opinions and circumstances over time. By so doing, a comprehensive picture can be built up over the study period of changes in household composition, characteristics, lifestyles and financial well-being as well as the mechanisms and processes underlying that change. Most importantly in the context of the present report, longitudinal surveys allow one to quantify the extent of income and poverty dynamics at the level of the individual household. In the

absence of panel-based longitudinal surveys one is forced to rely on sequential once-off or cross-sectional studies to provide any insights into changes in the incidence or rate of poverty over time. Comparative cross-sectional analysis of this S011 provides one with an estimate of net change in static poverty levels at two or more points in time. It does not allow one to comment on the often compensatory flows of households or individuals into and out of poverty over time. It is precisely because these flows are often compensatory that the true dynamic of poverty status has been overlooked. To allow one to comment on the gross flows into and out of poverty as well as on changes in the micro-level composition of those households which are in poverty one clearly needs a high-quality longitudinal dataset.

The trends considered throughout this report were derived from the first two waves of data collected as part of the ESRI's Survey of Income, Lifestyle and Usage of State Services. The first round of interviewing for this project was carried out in 1987 on an effective sample of approximately 3,300 households. The sample used in the second phase (which was carried out in 1989) was considerably smaller. When reweighted to adjust for differential non-response and related issues the sample of non-farm households, which was used in the analysis throughout this report, consisted of 767 households. This is undoubtedly smaller than desirable, and the analysis is consequently constrained in the extent to which we can disaggregate the data. As discussed in full in Chapter 2, it is also important to note that low-income households in the 1987 survey were over-sampled in the 1989 follow-up, so as to maximise the reliability of the picture provided of households which escaped from poverty over the study period¹. For

¹ The disproportionate sample selection procedures used for phase 2 of the survey was accounted for in the reweighting schema devised for that round of data. The reweighted results presented in the report are thus representative of the national picture. (See Chapter 2 for a description of the reweighting procedures used in phase 2 and the Appendix for a discussion of the representativeness of the reweighted data.)

this reason our primary focus throughout the report has been on poverty escapes, although we do provide some details on the full range of possible poverty transitions over the period in question. Despite these limitations of the data they provide the first nationally representative longitudinal dataset to be constructed for Ireland and so allow us for the first time to address the issues involved in the dynamics of poverty incidence and transition.

7.1 Summary of Research Findings

In the report we have tried to develop a new perspective on the poverty debate in Ireland by considering trends in poverty dynamics emerging from the international literature as well as the data available for Ireland. We attempted throughout the report to provide an international framework or context within which to assess the trends emerging from the Irish data.

Much of this international context has been centred on the United States where a good quality longitudinal dataset stretching back to the late 1960s is available (the Panel Survey of Income Dynamics undertaken annually by the Survey Research Centre at the University of Michigan). In terms of overall income and poverty dynamics the key finding to emerge from analysis of the PSID is that changes in household or family composition have the greatest effect on economic well-being. Labour force experience, although exerting a substantial influence on changes in economic status, is of secondary importance. PSID data covering the period 1969-1978 have shown that between 35 and 46 per cent of those who were poor in any given year had escaped by the next year. The corollary of the escape rates is the percentage of persons who fell into poverty. The PSID data for the period 1974-1978 suggest that 3 to 4 per cent of those who were not poor in any given year had fallen into poverty by the following year. In general, poverty durations in the United States are relatively short. For example, Bane and Ellwood (1986) find that over the period 1970-

1982 about 45 per cent of poverty spells are over within one year and 70 per cent are over within three. A total of 12 per cent, however, last more than nine years. The same household may of course experience more than one spell. Using a slightly different approach to measuring poverty durations Duncan (1984) finds that over the period 1969-1978, a total of 24 per cent of the US population was poor in one or more years; 5 per cent were poor in five or more years and 3 per cent were poor in eight or more years. Less than 1 per cent of the US population were poor in all ten of the years under study.

What can be said of the Irish experience of income and poverty dynamics? Some trends in short-term transitions over the period 1987-1989 can be gauged from the longitudinal dataset which has been recently constructed for this report. We found, not surprisingly in view of the relatively short interval between the two rounds of interviewing, that the vast majority of households experienced only a relatively minor degree of income change over the study period. A total of 52 per cent did not change their equivalent income quintile with approximately equal proportions of the remainder experiencing a deterioration and an improvement. Overall, the most clearly identifiable factor associated with income change was a change in the number of economically active household members and a change in the employment status of the household head.

As a preliminary to examining poverty dynamics *per se* we saw that there was a sizeable percentage of households which experienced a major reversal in their perceived ability to make ends meet over the study period. A total of 15 per cent of households which were experiencing great/some difficulty in 1987 said they were able to make ends meet fairly easily/easily/very easily by 1989. In contrast to this group we found that 13 per cent of households which were able to make ends meet with some relative degree of ease in 1987 were, by 1989, experiencing great/some difficulty.

In terms of objectively measured poverty status we found that escape rates were 59 per cent at the 40%-40% line; 38 per cent at the 50%-50% line and 30 per cent at the 60%-60% line. When focusing on the totality of non-farm households we saw that, at the 60%-60% of relative lines, approximately 65 per cent had experienced no poverty at either round of interviewing; just under 10 per cent had fallen into poverty over the study period; 7 per cent had escaped from poverty and the remaining 17 per cent were experiencing poverty at both points of interview.

We also examined poverty dynamics by considering trends in summary indices of material deprivation. Three such indicators were considered *viz* primary deprivation; secondary deprivation and housing & household capital deprivation. Not surprisingly we found that the greatest stability was in the housing & household capital index with just over three-quarters of non-farm households not changing their score on this indicator over the study period. Greatest fluctuation was evident in the secondary deprivation indicator. By combining the resource-based indicators of deprivation with relative mean income lines we were able to provide a complementary analysis of poverty dynamics. In terms of poverty incidence using a combined 50% relative income/primary deprivation² threshold we found that 10 per cent of households were in poverty at phase 1 of the survey in 1987. A total of 36 per cent of these poor households had escaped from poverty by the second round of interviewing in 1989. Finally, we noted a strong relationship between changes in household poverty status and changes in employment status of household head. The direction of this relationship was as one would expect.

There are two particularly significant aspects of these figures on poverty escape rates. First, the analyses based on both the subjective

² This is based on a 50% relative income line combined with a score of 1 or more on the primary deprivation index.

perceptions of ability to make ends meet as well as the objectively defined relative income and combined income/deprivation lines clearly suggest that there is a dynamic aspect to poverty and deprivation. The actual levels of the figures in themselves are not the all-important consideration. The most significant point to note is that those who are escaping from poverty are being replaced, in approximately the same proportion, as those who fall below the poverty line over the short term. Secondly, the critical factor in regard to income mobility and poverty transitions in Ireland seems to be labour market conditions and related changes in employment status of household head. This contrasts somewhat with much of the evidence discussed from the United States data (PSID) which indicates that changes in family composition are *the* most important factor in determining economic mobility. We did not find any evidence to suggest widespread incidence of household break-up in Ireland over the study period. Most of the compositional change which we did identify involved the birth of a child or the entry of another member to the household. Marital breakup did not feature significantly in our data. In the small number of cases where it did feature there were certainly specific instances of consequent hardship. This, however, was not manifest on a systematic or widespread basis.'

Although some of the findings presented from both the international literature and the Irish data may seem to be self-evident and to accord with what one would expect *a priori*, they clearly have an important role to play in the poverty debate. They underline the dynamic nature

³ The reader should note that we are not suggesting that the *probability* of poverty transition related to changes in household composition or labour market conditions is higher in Ireland than in, for example, the United States. The incidence of marital disruption and changes in household composition is lower in Ireland than in the US and so, in this respect, changes in the employment status of household head and number of economically active household members are more generally pervasive factors associated with poverty transitions in Ireland than in the international research surveyed throughout the report.

of poverty and consequently have policy implications which may have hitherto been overlooked. Only by quantifying the relative extent of cyclical and structural poverty and by identifying differences in the characteristics of both groups can we hope to put forward policy prescriptions which will address all aspects of the problem.

7.2 Policy Implications

In the introduction to the report we noted that one should- distinguish between long-term or structural poverty on the one hand and short-term or cyclical poverty on the other. One is forced to ask why we should bother to make this distinction or to attempt to study poverty dynamics and related issues. The simple answer is that unless we can make this distinction we will be unable to improve our understanding of the causes, nature and consequences of poverty in its totality. Such an understanding is necessary if one is to put forward policy prescriptions which will adequately address the level and implications of all types of poverty in Ireland today. It seems reasonable to assume that the prescription for short-term poverty is quite different to that for long-term or structural poverty. For example, entry into poverty may have quite different implications for a relatively young, highly skilled person than for a middle-aged, unskilled manual worker whose employment potential may seem limited. For the former the effects of poverty may be substantially alleviated by short-term receipt of social welfare transfers. For the latter, measures other than (or at least in addition to) social welfare payments may be called for. Because we were constrained by sample size and length of data series we were not able to address many of the substantive issues involved in poverty dynamics in the current report. We were not able to distinguish between structural and cyclical poverty nor to consider *duration* poverty spell. None the less, we were able to discuss most of these issues by drawing on the trends emerging from the international literature in this field and, where the data allowed, to augment these with trends in Ireland. In so doing the policy relevance of several issues

becomes obvious and it creates an awareness of such issues in the minds of the policy-maker and the general reader alike. The key issues relevant to poverty dynamics were identified as including: the incidence of all types of poverty transitions (escapes, falling into poverty etc); duration of poverty spell; events and underlying mechanisms associated with poverty transitions; and the characteristics of households which escape after only a short spell in poverty as compared with those which remain in poverty for extended periods of time.

7.3 Research Issues and Directions

To carry out further research in this field one would require a good quality longitudinal dataset containing details of income and financial well-being as well as general classificatory information on all household members in the panel. Running a high-quality panel presents major theoretical and operational difficulties. Panel maintenance is substantially more expensive than undertaking a series of repeated cross-sectional surveys as one has to track all members of all households in each round, even when they have left the "original" household and set up new, independent households of their own. When a respondent from an "original" household joins or forms another household all members of the newly generated household must be interviewed in all subsequent phases of the survey. The inclusion of these "newly generated" panel households compensate for panel mortality and thus keep the sample representative of the national population through time. Tracking newly generated households is a time-consuming and costly procedure and so panel maintenance is a difficult and expensive business.

In addition to considerations of resource requirements the operation of a panel survey raises major technical and theoretical questions. These relate particularly to the most appropriate unit of analysis and the associated issues of deriving an appropriate set of dynamic weights for the effective sample at successive rounds of interviewing. As noted in Chapter 2 (section 2.1) the exact definition of the

longitudinal population in profile to which one is attempting to gross the sample data is itself a problematic issue. Throughout this report we have concerned ourselves exclusively with household-level analysis. It would be equally valid (if the data allowed) to undertake analysis at the level of the individual within the household. This latter approach is the one most often chosen by researchers using data from the Panel Survey of Income Dynamics in the United States. Associated with these issues related to unit of analysis are complex issues of deriving an appropriate set of dynamic weights which adequately capture changes in the target population over time. Indeed, one could go so far as to say that panel-surveying is still at such a relatively youthful stage in Europe that there is as yet little consensus as to the most appropriate solution to many of the purely technical, statistical issues involved.

Length of data series is a particularly important issue as regards analysis of longitudinal panel-based data. What length of data series is "acceptable" for analysis? There is clearly no simple answer to this question. In the present report we only had observations at two points in time (1987 and 1989). Because of this we were severely constrained by left and right data-censoring. This means that, for example, when considering poverty escapes we do not know for how long before the study period a household had been experiencing poverty nor do we know for how long after the study period it remained above the poverty line. For some households the escape from poverty over the period 1987-1989 may have represented a temporary remission and they may have subsequently returned to a position below the poverty line in 1990 or later. For others it may have represented a return to the long-run norm above the line after only a temporary period in poverty. Given these problems of data truncation we simply cannot make any statement on poverty durations or provide estimates as to the relative importance of long-term, structural poverty as compared with short-term cyclical poverty. To make strong statements on duration of poverty spells or the relative importance of cyclical as compared with structural poverty one would

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need data from at least five rounds of panel interviews. In the absence of such a good quality longitudinal dataset the most one can aspire to is to show that there are clearly flows into and out of poverty over even the short-term at the level of the individual household and to raise the issues related to poverty dynamics in the consciousness of those working in this field.

Appendix: The Representativeness of the Reweighted Data

The data presented in this report were collected in two separate sample *surveys*. The first *survey* was carried out in 1987 on an *effective* sample of almost 3,300 households. The second *survey* was undertaken in 1989 with a total *effective* sample of 967 of the same households as those included in the 1987 survey. Of these, 918 were "original" households from phase 1 (ie households which existed at that time and continued in existence into phase 2 of the research). The remaining 49 households in the phase 2 sample were set up or newly generated over the period 1987-1989.

All sample surveys are subject to a number of different types of errors and inaccuracies. Roughly speaking we can divide these errors into two broad categories viz *non sampling errors* and *sampling errors*. The *total error* in a sample is a function of these two types. The non sampling errors can further be subdivided into a) non observational and b) observational. The former relate to non-response and *non-coverage* (ie elements of the population which were not included in the frame from which the sample was selected). The observational errors relate to field procedure such as measurement and recording of the information as well as office procedures such as editing, checking, processing and tabulating the data. By adequately cleaning the data and subsequently reweighting to account for differential non-response and selection we *have* addressed the non sampling errors associated with the *survey*. The *sampling errors* relate to the fact that there is potentially an infinity of samples which could be drawn from any population. Sampling errors are those introduced into the data by *virtue* of the fact that these samples will *vary* slightly from one to the other. We can attempt to quantify the effect of sampling errors by estimating standard errors and associated confidence intervals around the sample means for a number of key variables. In this section we address some of these issues by considering the representativeness of the data.

The representativeness of the data can be gauged by undertaking two types of tests. First, we can compare the reweighted results with published census or other authoritative data. Secondly, we can contrast the distribution of some key variables in 1987 based on the full phase 1 sample of 3,294 cases with the comparable distribution derived from the much smaller phase 2 sample of 918 households using the phase 2 weights. In other words, we can calculate, for example, average household income in 1989 using the full phase 1 dataset of 3,294 households and appropriate phase 1 weights. We can also calculate *average* household income for the same year (1987) using only the 918 households which responded in phase 2, along with the appropriate phase 2 weights. Provided the reweighting procedure works the reweighted results from the two samples should not be significantly different.

First, we consider how the reweighted phase 2 results compare with data published by the Central Statistics Office (CSO). We noted in Chapter 2 that the reweighted phase 2 sample does not purport to be representative of the population of households in 1989. It is representative of the 1989 characteristics of households which existed in 1987 and

which were still in existence two years later. Thus, a direct comparison cannot really be made between distributions derived from the sample and those published by the CSO. Nevertheless, although there should not be an exact coincidence between census data and reweighted sample data there should be a very strong relationship between the two. Such differences as do exist can be attributed to two factors: (i) the natural dynamics of the population over the period 1987-1989 and (ii) differences in methodologies, definitions, measurement and sampling error.

Table A1 compares the distribution of the principal economic status of all persons aged 15 years and over as derived from the 1989 round of the survey with that published from the 1986 Census. The distribution of principal economic status is particularly important because this is a key determinant of a household's financial circumstances. A household's income and income-to-needs ratio are primarily a function of the number of economically active and/or dependent persons within the household. We can see that, in general, the sample and 1986 population figures compare extremely well for both males and females. Sample figures for males give a lower percentage in the "at work" category and a higher percentage in the "other" category than do Census 1986 data. The "other" category contains three subgroups viz "permanently ill", "retired" and "miscellaneous other". Some of this discrepancy between sample and census figures for males, therefore, may be attributable to the natural ageing process over the period 1986 to 1989 with some of those who were "at work" at the time of the census having retired three years later when the sample was taken. The table also shows that the breakdown of the population aged 15 years and over by sex is identical for sample and census.

Table A1: Persons Age 15 Years and Over Classified by Principal Economic Status and Sex

Principal Economic Status	ESRI Survey, Phase Two		Census 1986	
	Males	Females	Males	Females
	Per Cent			
At Work	56.8	29.1	59.6	27.5
Unemployed	12.4	2.0	12.3	3.3
First Job Seeker	1.9	1.2	2.1	1.3
Student	9.7	9.7	9.8	9.7
Home Duties	0.0	52.3	0.0	51.4
Other	19.2	5.6	16.2	6.7
Total	100.0	99.9	100.0	99.9
% all persons 15+	49.4	50.6	49.4	50.5

Source: Census' 1986; Summary Population Report - 2nd Series, CSO November 1989, Table C p.14. ESRI Survey, Spring 1989. (ESRI data based on Surviving phase 1 households only).

Appendix: The Representativeness of the Reweighted Data

Table A2 presents a classification of the population by age and sex from both the 1986 Census and also the phase two sample. From this we can see that the national situation in 1986 is reflected in our sample in phase two of the survey. It is worth noting that we had a slightly higher percentage of both males and females in the 65-74 age group than in the Census. The ESRI's survey is based on the population in private households and specifically excludes the institutionalised population, most of whom are in this upper age category. We would thus expect the ESRI sample to be below the national levels in these upper age cohorts. The fact that the sample has a slightly higher than expected percentage in these older age cohorts once again tends to point, at least in part, to an ageing of the population represented in the sample. One could assume that natural wastage through death of panel members, has been taking place in this population at the rate of the national average. In Table A1 and A2 however, we have not considered the generation of new households which are being set up by people in the lower age categories and among whom birth rates would be highest. These new households with young children would tend to lower the average age of the population. Their exclusion, therefore, results in the mean age of persons in the sample being slightly above the national average. The average age of household members from the phase 1 sample of 1987 was 30.3 years. The average age of members from households which survived in to the second phase sample was 31.6 years.

Table A2: Persons Classified by Age Group and Sex Based on ESRI Survey and Census 1986

Age Group (years)	ESRI Survey,	Phase Two	Census 1986	
	Males	Females	Males	Females
	Per Cent			
0-4	8.8	9.2	9.4	8.9
5-14	22.4	21.5	20.3	19.3
15-24	15.1	13.2	17.7	17.1
25-34	13.0	14.2	14.2	14.1
35-44	12.4	11.9	12.1	11.7
45-54	9.4	8.3	8.9	8.5
55-64	8.1	8.6	7.8	8.2
65-74	8.5	8.8	6.3	7.3
75+	2.3	4.2	3.2	4.9
Total	100.0	99.9	100.0	100.0

Source: Census 1986, Summary Population Report, Central Statistics Office, November 1987, Tables 48 and 4C pp 6-7; ESRI Lifestyles Survey, Phase 2, Spring 1989. (ESRI data based on Surviving phase 1 households only).

The incidence and level of social welfare transfers are of particular relevance to the study of income, poverty and their-correlates. Table A3 presents Department of Social Welfare figures on the percentage of the population in receipt of social welfare payments and also the breakdown of recipients by payment type. Because there are flows of recipients into and out of the system over even short periods of time we present data relating to 31 December 1988 and also 31 December 1989. These two points provide reasonable benchmarks against which to estimate reciprocity levels in the period March-May 1989, when interviewing for phase 2 was carried out. The table also presents an estimated distribution of payment types from the ESRI survey. From these figures we can see that Department of Social Welfare statistics suggest that approximately 20.5 per cent of the population was in receipt of social welfare payments in 1989. This compares with an estimated figure of 19.1 per cent from the ESRI Survey. From the breakdown of recipients by type of payment, we can see that there is a reasonable concurrence between the figures published by the Department and those estimated from the survey. For example, the Departmental statistics suggest that 30.6 per cent of social welfare recipients receive unemployment payments (benefits and assistance). This compares with a survey estimate of 30.0 per cent.

The greatest discrepancy seems to be in Old Age, Retirement and Widow's pensions. Some of this discrepancy may be attributable to confusion in the respondent's mind as to which pension type is being received. From Departmental figures it appears that approximately 48 per cent of all social welfare recipients were in receipt of one of these three pensions at the end of 1989. This compares with an estimate of 51 per cent from the sample.

Appendix IX: The Representativeness of the Reweighted Data

Table A3: Percentage Breakdown of Social Welfare Recipients by Payment Type Based on Social Welfare Statistics (a,b) and ESRI Survey Data (c) %

	(a) Dec 31 1988	(b) Dec 31 1989 Per Cent	(c) March-May 1989
Old Age Pension(1)	27.2	27.4	38.0
Retirement Pension	5.9	6.3	2.5
Widow's Pension (1,2)	13.9	14.4	10.5
Single Woman's Allowance	0.3	0.3	0.2
Disability Benefit (3)	8.7	8.0	6.0
Invalidity Pension	4.0	4.3	5.2
Disablement Benefit	1.0	1.0	1.3
Injury Benefit	0.1	0.1	0.1
Maternity Benefit	0.5	0.5	0.6
Unemployment Benefit	10.2	8.6	9.9
Unemployment Assistance (4)	21.6	22.0	20.1
Orphans Pension (1)	0.1	0.1	0.0
Deserted Wife's Payment (1)	1.9	2.1	2.4
Unmarried Mother's Allowance	2.1	2.3	1.3
Prisoner Wife's Allowance	0.0	0.0	0.0
Rent Allowance	1.6	1.6	
Supplementary Welfare Allow	0.7	0.8	1.0
Family Income Support	0.2	0.2	0.9
Total	100.0	100.0	100.0
Receipts as % of total Population	20.5	20.4	19.1

Source: Statistical Information on Social Welfare Services, 1988 and 1989 Department of Social Welfare, 1989 and 1990 ESRI Survey on Lifestyles and State Services, Phase 2, 1989

(1) Contributory and Non Contributory

(2) Includes 108 widows in 1989; 466 Death Benefit Pensions in 1988 and 463 Death Benefit Pensions in 1989

(3) Includes 1,044 Interim Disability Benefit in 1988 and 1,653 Interim Disability Benefit in 1989.

(4) Includes Small Holders Allowance

The distributions in Tables A1 to A3 validate the reweighted data, as far as feasible, in respect of the total population characteristics from available published statistics. In view of the complexity of the reweighting procedure it is also instructive to carry out a second type of check on the effects of the weights. This can be done by deriving the distribution and descriptive statistics of some important variables, such as 1987 household income, from the full phase 1 dataset of 3,294 households using the appropriate phase 1 weights. A comparable distribution can also be derived from the phase 2 data using the new weights and the phase 2 sample of 918 "old" households. The reader is reminded that this latter sample is effectively a subsample of the phase 1 dataset. In doing this sort of check we are using the full set of phase 1 households as an external frame of reference or set of "population" figures against which to compare the figures derived from a subsample of that "population" using a new weighting system. With this second type of check in mind Table A4 presents details on the mean household income in 1987 based (a) on the 3,294 cases of phase 1 and (b) the 918 cases of phase 2 using the phase 2 weights. We can see that these compare very favourably. They also compare well with the average household income figures of £200.96 published by the Central Statistics Office from its 1987 Household Budget Survey. The table also shows the average breakdown of household income into its components viz labour income, social welfare income and "other" income. We can see that there is virtually no difference in the percentage figures derived using the different estimation bases.

Table A4: Average Household Income in 1987 and the Average Percentage Breakdown of that Income into Labour, Social Welfare and "Other" Elements for the 1987 Population of Households Using the Full Phase 1 Sample and the 918 Cases of the Phase 2 Sample.

	(a) From 3,294 cases of phase 1 sample and phase 1 weights	(b) From 918 cases of phase 2 sample and phase 2 weights
Average Hsd. income	IR£198.00	IR£201.67
Average percentage of hsd. income accounted for by:		
Labour income	55	56
Social welfare	37	36
"Other" income	8	8
Total	100.0	100.0

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