RESEARCH

DAY IN, DAY OUT

UNDERSTANDING THE DYNAMICS OF CHILD POVERTY

Combat Poverty Agency
working for a poverty-free Ireland

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Foreword

Combat Poverty is a state agency developing and promoting evidence-based proposals and measures to combat poverty in Ireland. It is the main public organisation for promoting and commissioning research on poverty and for evaluating and advising on the impact of public policies on poverty. Our research programme seeks to achieve a better public understanding of poverty and to influence appropriate policy responses to poverty in the context of the National Anti-Poverty Strategy.

Child poverty has been a long-standing concern of the Combat Poverty Agency. Poverty undermines the rights of children to an acceptable standard of living. It induces immediate effects of a deprived childhood and forces children to experience a range of disadvantages in later life. It contributes to the inter-generational perpetuation of poverty and imposes major economic costs on society, both through the loss of human potential and in the cost of a range of remedial interventions.

Child poverty persists and continues to be a serious problem, despite Ireland's unprecedented economic growth and the number of supports available for families with children. Recent statistics* show that approximately one in five Irish

**European Survey on Income and Living Conditions (EU-SILC)*, Central Statistics Office (CSO), 2005

children are at risk of poverty and a further 9 per cent of children suffer from the more severe form of consistent poverty (both income poverty and deprivation of basic necessities).

Ending child poverty has been identified as a national policy priority. The National Anti-Poverty Strategy commits to reducing consistent poverty rates among children to 2 per cent or less. The National Action Plan against Poverty and Social Exclusion (2003-2005) states as a key policy task to 'develop a more integrated policy and institutional structure to ensure adequate supports for children, their development and for those caring for them'. The Social Partnership agreement *Sustaining Progress* (2003-2005) contains a 'Special Initiative on Ending Child Poverty'.

Child poverty is also an issue at an international level. The UN Convention on the Rights of the Child highlights the right of children to an acceptable standard of living and to social development to reach their full potential. Under the EU social inclusion strategy to make a decisive impact on poverty by 2010, there is a particular focus on actions to tackle child poverty by member states.

Much of the Irish policy response to child poverty is based on a cross-sectional analysis of child poverty rates, with a focus on children affected by poverty at a specific point in time. However, duration of child poverty is equally important because the longer spent in poverty, the worse the consequences. A key component of ending child poverty is to better understand the flows into and out of child poverty, and to identify the causal processes that result in children spending a long time in poverty. More broadly still, it is important to investigate the links between child poverty in one generation and adult poverty in another.

In this context, Combat Poverty commissioned the Economic and Social Research Institute (ESRI) to undertake a combined study on the longitudinal aspects or dynamics of child poverty and on the inter-generational transmission of poverty. The study investigates two distinct components of the longitudinal aspect of child poverty: how many years of poverty were experienced by children over time (the persistence of child poverty) and the length of the spells children spend in poverty (the duration of child poverty).

In doing this, it also compares the dynamics of child poverty in Ireland with those in other EU countries. This dynamic perspective captures the cumulative length of time that children spend in poverty and the key factors that lead to children staying in poverty over a long period of time. The study also looks at the childhood background of adults in poverty and the factors that lead to adult poverty, i.e. the inter-generational cycle of poverty.

The study used data from the Living in Ireland panel survey over an eight-year period (1994-2001) and equivalent data, from the European Community Household Panel, for EU comparator countries. It generated a broad range of important research findings, which are presented and discussed in this report. These findings are crucial to policy makers, as they contribute to the debate on where best to target policies.

The study's overall message is that children tend to move into and out of poverty over time and that the duration of poverty experienced by children is affected by household characteristics such as the employment, educational and health status of parents and the number and age of children in the household. Consequently, the policy response to child

poverty should not only have an income support focus but also a multi-dimensional approach focusing on income supports, combined with measures that support employment, education and accessibility of services such as childcare and health. Combat Poverty – in meeting its policy advisory remit – has developed a policy statement on the key policy messages and actions arising from the study entitled *Day In, Day Out, Understanding the Dynamics of Child Poverty*.

Executive Summary

Poverty during childhood can have a very wide range of adverse effects on those who experience it, ranging from immediate hardship to long-term damage to life-chances, with low income persisting over a sustained period most likely to lead to severe hardship. The extent of child income poverty as conventionally measured is particularly high in Ireland, and has been for a considerable period. Tackling child poverty has come to be seen as a major challenge for Irish society. To do so effectively the factors at work in producing and perpetuating child poverty must be understood.

The aim of this study is to obtain an improved understanding of the long-term situation of Irish children, the features that distinguish those children who are faring particularly badly, and the causal processes at work underpinning long spells in poverty for some, versus little or no experience of poverty for many others. The study carries out a dynamic analysis of child poverty persistence in Ireland, using longitudinal data from the Living in Ireland Survey (LII) from 1994 to 2001, and also investigates the intergenerational transmission of poverty and disadvantage.

Chapter 1 sets out the aims of the study, and the conceptual framework, methods and data employed. Chapter 2 provides

the background against which the dynamic analysis of poverty has to be set, in terms of the extent of relative income poverty for children in Ireland compared with other EU countries. Chapter 3 examines the overall persistence of poverty for Irish children over the period for which we have suitable data, from 1994 to 2001. Chapter 4 looks at spells in income poverty and their duration. Chapter 5 develops this spell-based analysis by estimating formal statistical models of the processes involved in order to identify key influences on spell duration.

Chapter 6 takes a comparative perspective on this duration analysis, comparing patterns in Ireland with those in ten other EU countries for which similar longitudinal data are available. Chapter 7 shifts to focus on intergenerational transmission, relating the current experience of poverty back to childhood economic circumstances. Finally, Chapter 8 summarises the conclusions and brings out the implications for policies to tackle child poverty in Ireland.

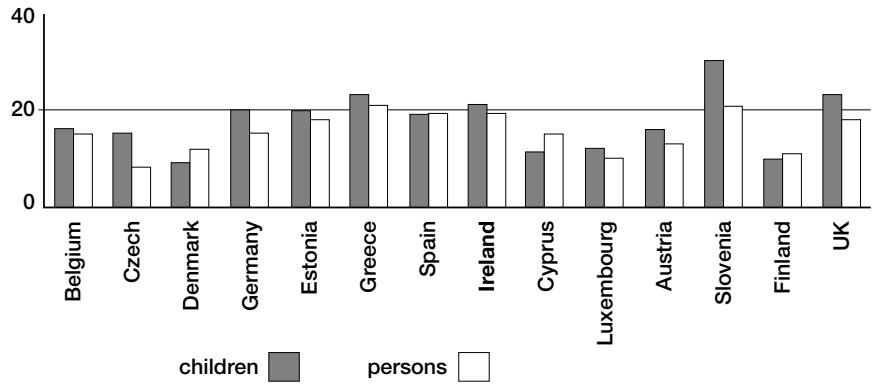
Relative Income Poverty for Children

About one in five Irish children are below 60 per cent of median income, a widely-used measure of relative income poverty, at a point in time. Children also have a higher rate of 'consistent poverty'. In the EU Ireland is among a group of countries with a rather high relative income poverty rate for children (see Figure, page xxv).

Poverty Persistence

This study focuses on whether such income poverty is persistent or transitory. Half the children observed in the

Percentage of Children and Persons Below 60 per cent of Median Income in EU Countries, 2003



survey from 1994 to 2001 spent some time in a household below that threshold. Only 4 per cent were below the threshold in all eight years, but one in four spent a substantial proportion of the time (at least three years) below it. Children experienced substantially more relative income poverty than working-age adults without children, though less than older people. About 18 per cent of children had one transitory period below the income threshold, 10 per cent had recurrent spells of poverty, and 18 per cent had one long spell in income poverty.

Very few children with two parents/partners present in the household and employed when first observed experienced recurrent or persistent poverty, whereas where neither partner was employed initially 60 per cent experienced persistent income poverty. Where there was only one partner present the subsequent pattern of income poverty persistence was critically dependent on whether he/she was employed at the outset.

Number of Years Below 60 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

Years below threshold	Children	Working-age adults without children	Adults aged 65 +
		Percentage	
0	49.7	60.4	41.7
1	13.6	15.0	13.7
2-4	19.8	17.7	27.7
5-7	12.8	5.4	14.2
8	4.3	1.5	2.7
Total	100.0	100.0	100.0

Similarly, children in households where social welfare initially accounted for most of household income were very likely to subsequently experience persistent income poverty. Living in a household where the reference person had lower levels of education or was reporting less than good health increased the probability of persistent poverty, as did having three or more children.

Focusing on consistent poverty – that is, being in a household both below a relative income threshold and reporting basic deprivation – about 29 per cent of children experienced consistent poverty at some point over the panel, and about 15 per cent of children spent three or more years in consistent poverty. Almost all the children who were in consistent poverty in 1994 went on to experience recurrent or persistent low income over the life of the panel. Looking at the other side of the coin, children who experienced persistent low income also spent much more time in consistent poverty than others.

The Duration of Poverty Spells

Analysis of the duration of spells below the relative income threshold showed that about 60 per cent of spells were of a single year, while about 23 per cent were of three or more years duration. The mean spell duration was just under two years; children had an average duration of 1.72 while those aged 65 or over had longer durations.

Children in poor households had a lower probability of escape from below the income threshold in each period than adults. Level of education, initial labour force status and the number employed in the household also had a major impact on that probability. The more children the household contained, the lower was the probability of exiting poverty. This suggests that children have a direct impact on poverty risk by increasing the level of household 'need' relative to income.

Children may also have an indirect effect on the likelihood of escaping from poverty by influencing the labour market situation of their parents – most obviously, women may be less likely to be in work if they have young children, particularly if childcare is expensive or hard to obtain. The finding that younger children had a greater impact than older ones on the duration of poverty spells for lone parents suggests this may be particularly important for them.

A Comparative Perspective on the Duration of Poverty Spells

Although Irish children are more likely to experience a period of poverty than children in other EU countries, this poverty is less likely to be persistent or recurrent than in countries in

Southern Europe such as Greece, Spain, Portugal and Italy.

Among the 'old' EU-15 member states, persistent income poverty for children was highest in Southern countries and the UK and lowest in Northern ones, with Ireland in between. However, the gap in the likelihood of persistent low income between children and working age adults without children was particularly high in Ireland (and the UK).

Children faced a higher probability than adults of experiencing recurrent or persistent poverty in almost all these countries, controlling for a wide range of household characteristics. In Ireland and some other countries, the disadvantaged position of households with children was particularly strongly influenced by educational attainment and labour market 'failure'. Having three or more children in the household increased the probability of recurrent or persistent poverty in all these countries.

The Inter-Generational Transmission of Disadvantage

The study then focuses on the links between poverty for adults and the circumstances in which they themselves had lived as children, specifically the occupation/social class and education levels of their parents and how much difficulty they felt their household had in making ends meet. Persons from less advantaged education backgrounds, from lower socio-economic groups and with less favourable economic circumstances in childhood were all found to have considerably higher poverty rates in adulthood than others.

Parental social class, parental education, and difficulty making ends meet in childhood were all inter-related, and were found to be strongly related to the individual's own

educational achievements. For example, an individual whose parents had no educational qualifications beyond primary level had 23 times the risk of themselves having no formal qualification of someone whose parents had third-level education.

The impact of childhood circumstances on current poverty operates partly but not entirely through the individual's own education level, social class, and labour market experience. For example, having had great difficulty making ends meet when growing up remains a significant predictor of poverty now, even when one 'controls' statistically for the individual's own education, social class and employment status.

An accumulation of various disadvantages is associated with a marked increase in poverty, but it is important to realise that the numbers affected by such a combination of disadvantages may be small. About three-quarters of those in poverty had parents with no more than primary education, but only about one-quarter also reported great difficulty making ends meet when they were growing up, and only 15 per cent also had no educational qualification beyond primary level.

Policy Implications

The study is not aimed at evaluating particular institutional structures or policy interventions, but knowing about the scale and nature of poverty persistence and inter-generational transmission is a critical ingredient in policy formation. Taking a dynamic perspective and focusing on the approximately one-quarter of children who experienced recurrent or persistent income poverty allows the key distinguishing characteristics of their households to be identified.

This reveals first that connection with the labour market – or rather lack of it – is vital. The number of people in the household in paid work at the outset was a core predictor of subsequent experience of income poverty and of the length of income poverty spells. So a very clear priority for policy is to do everything possible to ensure that at least one partner in couple-headed households is in paid work. That will not insulate their children fully from persistent income poverty, but it will substantially reduce the probability that they experience it. The position of lone parents is distinctive. Working is not a panacea for lone-parent households, but it does reduce subsequent exposure to income poverty very substantially.

The results also consistently bear out the importance of parental educational attainment in determining which children do and do not experience sustained low income or longer versus shorter income poverty spells. Those with no second-level qualification in particular face much greater risks of sustained low income than others, and both they and their children pay the price in terms of lower living standards. Conversely, policies that succeed in reducing school drop-out impact not only on the individuals directly affected but on their children, and this needs to be incorporated into cost-benefit analyses of their value.

The results also bring out that Irish children, particularly those in larger families, face a higher risk of sustained income poverty than working-age adults without children. While teenagers entail higher direct costs than younger children, they also have less impact on parental working. Paying a larger amount for third and subsequent children – as child benefit does – is likely to be well targeted.

Both the increase in universal Child Benefit and the new payment in respect of all young children announced in the Budget for 2006 are significant steps. In addition to these broadly-targeted income support measures, the position of those relying entirely on the social welfare system, as well as those seeking to make the transition from welfare to work, needs special attention. Furthermore, the overall level of income support rather than just the child support element, and services (such as health, education and training, and social services) as well as cash transfers, play a central role in influencing the living standards and well-being of children.

A successful strategy to tackle child poverty in Ireland will need to have a focus that is much broader than child income support *per se*, since the education, employment and health status of the adults in their household are key determinants of poverty persistence.

The chances of experiencing sustained poverty in adulthood vary enormously depending on one's childhood socio-economic environment. It is not only the inter-class differences in academic performance that emerge at early stages of development, but also differences in educational choices later on, that matter – and earlier choices may have a substantial impact on later performance. So strategies that successfully intervene to reduce barriers and widen people's choices at an early stage can have a cumulating effect in terms of later success. In addition, processes of structural change may result in an upgrading of the class structure such that a 'rising tide lifts all boats'.

Policy can seek both to reduce the extent of societal inequalities in childhood socio-economic circumstances, and to weaken the linkages between those circumstances and the

opportunities that people face as they progress through the education system and into the labour market. Experience elsewhere shows that significant progress can indeed be made on both these fronts, provided the complex web of mechanisms and causal pathways involved are taken into account and policy seeks to intervene on a sufficiently broad-ranging basis. The forthcoming national longitudinal study of Irish children offers a unique opportunity to trace those pathways for a representative sample of Irish children and to inform policy designed to tackle both the scale of child poverty and its impact across the generations.

Chapter 1

Introduction

1.1 Introduction

Tackling child poverty has come to be seen as a major challenge for Irish society. To do so effectively the factors at work in producing and perpetuating child poverty must be understood, and analysis of the dynamics of child poverty – the focus of this study – has a great deal to contribute in that respect. This chapter sets out the aims of the study, and then discusses in turn the conceptual framework that underpins it, the methods and data the study employs, and its structure.

1.2 Aim of the Study

The extent of child income poverty as conventionally measured is particularly high in Ireland, and has been for a considerable period. A study published by Combat Poverty in 2000 (Nolan 2000) showed that in the mid-1990s Ireland had the highest percentage of children falling below the most widely-used relative income poverty thresholds of any of the then EU-15 member states. Recent data show that although the gap between children and adults in terms of income poverty narrowed as economic growth surged, Ireland continues to have a particularly high proportion of children

below the most widely-used relative income thresholds. Child poverty has been prominent in debates about economic and social policy, and a variety of specific proposals have been advanced for how best to address it (see for example Combat Poverty 2005; NESC 2005). The aim of this study of child poverty dynamics is to obtain an improved understanding of the long-term situation of Irish children, the features that distinguish those children who are faring particularly badly, and the causal processes at work underpinning long spells in poverty for some, versus little or no experience of poverty for many others.

The value of going beyond a snap-shot of income at a point in time, to analyse how long children remained on low incomes and how their household entered and escaped from that situation, was emphasised in Nolan (2000). It used the first two waves of the Living in Ireland Survey (LII) to illustrate the value of dynamic analysis, to show for example how many of the children in households below different relative income thresholds in 1994 had 'escaped' from income poverty by 1995. Much more longitudinal data is now available, with the LII Survey having followed people from 1994 all the way up to 2001. This provides the basis for a fully-fledged analysis of the dynamics and persistence of child poverty over that period, and that is the primary aim of the present study.

Childhood poverty and disadvantage, as well as being of great concern in their own right, are also increasingly seen as giving rise to major inequalities in life chances and later outcomes. Data in the LII Surveys also allow the transmission of poverty from one generation to the next to be examined, and we will exploit that potential in this study.

The central aims of the study are to:

- develop our understanding of the dynamics of child poverty in Ireland between 1994 and 2001
- compare the dynamics of child poverty in Ireland with those in other EU countries
- investigate the inter-generational transmission of poverty and disadvantage
- provide policy recommendations regarding child poverty.

The contribution a dynamic perspective can make to framing an effective policy response to child poverty should be stressed. Understanding movements into and out of poverty is essential to designing effective policies and programmes to tackle child poverty. In particular, examining the dynamics of child poverty will help identify:

- the groups of children that are currently poor
- whether child poverty is concentrated amongst a particular group of children or whether the majority of children experience poverty at some point
- why some children move out of poverty quickly whilst others remain in poverty for relatively longer periods of time.

Policy can then be more accurately targeted and better designed to hone in on the children most in need and on the causal processes that place them in that position. Our analysis of the inter-generational transmission of poverty will also help identify the channels by which the inheritance of disadvantage takes place and highlight where intervention should be focused. This, among other things, will help to

inform the National Longitudinal Study of Children which is being launched by the National Children's Office. The longitudinal study will obtain detailed information on a large representative sample of young children, and then follow them over time to track their development and circumstances and seek to understand the factors affecting them.

In this introductory chapter we set out in turn the conceptual framework for the study, the methods and data it employs, and its structure.

1.3 Literature Review and Framework of the Study

The situation of children has recently come to the forefront in policy debates both in Ireland and at European Union level, for (at least) two reasons. The first is that conventional measures of relative income poverty, including those among the indicators agreed as part of the EU's Social Inclusion process, have highlighted the high proportion of children falling below such poverty thresholds. This has certainly played an important role in Ireland, which is generally ranked among the member states with the highest proportion of children below such thresholds. The second and related factor is that there is increasing awareness of the role that poverty in childhood plays not just in exposing children to hardship but also in blighting their life-chances: child poverty has a high long-term cost for both the individuals affected and their society.

These concerns at national level have led to a variety of proposals for improving the incomes and social supports of low-income households with children (see for example the broad-ranging policy analysis and recommendations in Combat Poverty (2005) as well as the discussion in NESC

2005). At EU-level, *inter alia* they have been reflected in the arguments advanced for 'children mainstreaming' in monitoring progress in the Social Inclusion process (see Atkinson *et al* 2005).

In framing an appropriate policy response, the impact of poverty during childhood on those who experience it, ranging from immediate hardship to the long-term damage it can cause to life-chances and indeed life expectancy, needs to be measured and understood. However, one would expect quite different consequences to flow from having an otherwise well-resourced childhood interrupted by a brief period in poverty, versus at the other extreme spending one's entire childhood in poverty. Current income, so often relied on to reflect command over resources and living standards, is a partial indicator which (even if measured with complete accuracy) does not take assets and debts, or the particular needs of the household, into account. It is the experience of low income over a sustained period, such that the basic needs of the household cannot be met, that is associated with severe hardship.

The longer the period spent in poverty, the more financial resources and help from friends and family become eroded, and the greater the impact on living standards will be. As Bradbury *et al* (2001) emphasise in their comparative study of child poverty dynamics, the length of time children spend in poverty, and the pattern and duration of that poverty, continue to have an impact on children in the long term – the longer a child is poor, the greater the deprivation he/she will suffer in later life.

Cross-sectional analysis can take this time dimension into account to some extent. For example, in measuring and

trying to understand current living standards one can go beyond current income to incorporate other information such as assets and direct measures of deprivation, as has been done in a range of previous Irish studies using the LII Survey data. However, the time dimension can be most effectively incorporated into the picture by using longitudinal data, where information from the same set of people has been obtained at different points in time. This is now much more widely available internationally than heretofore, and has allowed a significant development in the dynamic analysis of poverty, including child poverty and its consequences. Specifically, longitudinal data for a sequence of years have been used to capture how long children spend in poverty and how spells in poverty begin and end.

The present study applies the methods used in studying other countries to take a fully dynamic perspective on child poverty in Ireland for the first time, using longitudinal data from 1994 to 2001. The first aim is to capture the extent to which low income is persistent versus transitory for Irish children, just how concentrated the experience of low income is among certain children, and the types of household most seriously affected. We also examine the duration of income poverty spells and the factors associated with movements into and out of income poverty for households with children, allowing us to explore the causal processes at work.

The availability of similar data for other EU countries which participated in the European Community Household Panel Survey also allows us to place child income poverty dynamics in Ireland in a comparative perspective, and see if Ireland is distinctive in terms of child poverty persistence and/or underlying causal processes.

Given the extent to which non-monetary deprivation indicators have been incorporated into the cross-sectional analysis of poverty in Ireland, it is also important to relate our findings on income poverty dynamics to these other indicators. For example, are children who emerge from the dynamic analysis as in households on persistently low income also those identified cross-sectionally as in 'consistent poverty', that is on low current income and experiencing basic deprivation?

We then turn to inter-generational transmission. Childhood poverty and disadvantage, as well as being of great concern in their own right, are also increasingly seen as giving rise to major inequalities in life chances and later outcomes. The transmission and inheritance of inequality and poverty have recently received a great deal of attention from both economists and sociologists. Bowles and Gintis (2003, 2005) and Erikson and Goldthorpe (2003) offer recent overviews of the literature from, respectively, economic and sociological perspectives. The most elaborate analysis of these issues has arisen where measures of income are available for parents and children and the issue of the extent of inter-generational correlation of income across generations, and the nature of the mechanism mediating such correlation, can be addressed. Considerable attention has focused on the role of inherited intelligence or ability.

Unfortunately the kind of data that would permit this to be analysed is not available in the Irish case. However, since the general conclusion to emerge from the recent literature is that little inter-generational inequality is due to the inheritance of intelligence, this may not constitute as great an obstacle to understanding the transmission of disadvantage as might be imagined. Genetic inheritance, however, can contribute to

inter-generational inequality in other ways and this is something that needs to be taken into account.

As Swift (2005) notes, economists in the US, on the basis of analyses of new and improved data, have revised upwards their estimates of the association between the incomes of parents and children. With this adjustment the views of economists have tended to come in line with the conventional wisdom among sociologists – especially European sociologists – who tend to conceive of mobility as occurring between discrete class positions, rather than across the income or earnings distributions (Erikson and Golthorpe 1992; Breen 2004).

Economists often use a model in which parents invest in their children's human capital so, all else being equal, families with more income can invest more in their children and enhance their chances of success. Sociologists, while not denying the importance of investment in human capital, are more likely to emphasise the direct transmission of advantage through inheritance and social networks. The most elaborate analyses of these processes use information gathered first in childhood and then later on in adulthood. While not of this sort, data in the LII Survey allow us to explore the scale of inter-generational impact on a range of exclusionary outcomes.

Information is available from adults in the survey on the social class, labour market experience and educational qualifications of their parents, and on how much economic strain their household was under when the respondent was growing up. There is also a great deal of information about the current situation of those adults and their households. One can then study how the social class and employment experience of the parents in the first generation connected to

experience of economic strain in childhood, and thereby to educational, class and labour market experience for the second generation, and ultimately a range of outcomes that can be characterised as exclusion for some of the adults surveyed. The varied set of indicators available, described in detail in Chapter 7, allows a multidimensional and dynamic view of processes of social exclusion to be adopted in the analysis of inter-generational transmission that we present at that point in the study.

1.4 Methodology and Data

To provide the context for the analysis of child income poverty dynamics, the study begins by recalling the key features of the cross-sectional picture of child poverty from the last LII Survey, in 2001, and how that had changed since 1994 when that survey was first carried out. The scale of relative income poverty for children in Ireland compared with other EU countries, and how that has evolved, are also described.

We then turn to the dynamics of low income and income poverty as it affects Irish children. Two distinct but related perspectives are adopted in studying child income poverty dynamics: one focuses on the overall experience of poverty over a period of years, the other on the poverty spell. We start by measuring the number of years spent by children below the income thresholds over the life of the panel survey. On this basis we distinguish between those experiencing no poverty, one transitory period in poverty, recurrent spells of poverty, or one long spell in poverty.

We then estimate econometric models which seek to identify the key characteristics associated with persistent or extensive

low income. This allows us to assess the extent to which child income poverty is concentrated amongst a particular group of children, and distinguish those with no or only a transitory experience of poverty from those who remain in poverty for long periods of time or experience recurrent spells of poverty. We also explore the relationship between persistent income poverty and 'consistent poverty', that is low income combined with basic deprivation, which is the poverty measure employed in setting the global poverty reduction target in the National Anti-Poverty Strategy.

The duration of poverty spells is then analysed, and the factors that appear to be associated with escaping versus continuing in income poverty are examined using hazard models of spell duration. (Since the results may be sensitive to the choice of threshold, and measurement error may produce more mobility than is actually taking place, a variety of thresholds will be tested.) A comparative perspective to child income poverty dynamics is also adopted using the data for other EU countries in the European Community Household Panel Survey. The analysis of income poverty dynamics affecting children in these EU countries will employ the same methodological approaches as applied to the Irish data, the main aim being to assess whether income poverty for children is more or less persistent in those countries, and whether the factors influencing poverty experience/durations are similar to Ireland.

Finally, the study shifts focus from the dynamics of child poverty *per se* to the inter-generational transmission of poverty and disadvantage. This is done by analysing how income poverty, life-style deprivation, consistent poverty and the subjective experience of economic strain for adults in the LII Survey are related to the socio-economic characteristics

of their parents and their childhood economic circumstances. As well as providing a descriptive picture of those relationships we use a range of statistical and analytic techniques that help to clarify both the paths through which inter-generational disadvantage is transmitted, and the extent to which such disadvantage takes a genuinely cumulative form. For example, we explore whether parental social class is seen to still have a significant impact on the likelihood of low income or poverty even when one's own educational qualifications have been taken into account.

While parental social class is a key indicator of the overall level of resources associated with particular family backgrounds, there is still a good deal of variation within social classes. To take that into account, we also make use of the information obtained from respondents on the educational attainment of their parents and the degree of hardship the family experienced when they were growing up. Taken together, these give us a good grasp of the overall command over economic resources enjoyed by the parental household, which we seek to relate to the key outcomes in adulthood for our sample.

The data employed throughout are from the LII Survey, which was the Irish element of the European Community Household Panel (ECHP) organised by Eurostat, the Statistical Office of the European Communities, and carried out in most of the then member states of the EU-15 from 1994 to 2001. While this survey was discontinued after 2001, as discussed below its replacement, known as 'EU Statistics on Income and Living Conditions' (EU-SILC), and first carried out in Ireland by the CSO in the second half of 2003, shows a similar broad pattern in terms of relative income poverty rates (though not deprivation levels),

including those for children, in 2003 and 2004 (see CSO 2005a, b).

The LII survey used the Electoral Register as the sampling frame, and the first wave of the survey in 1994 obtained information for 4,048 households, a response rate of 62.5 per cent of valid addresses contacted. To ensure the representativeness of the data, the sample for analysis is reweighted using weights derived from sources such as the Census of Population and the Labour Force Survey, in terms of number of adults in the household, number at work in the household, socio-economic group, age and location. The representativeness of the initial sample after reweighting was validated by comparison with information from external sources on a variety of other dimensions (Callan *et al* 1996 has a full description).

The sample from the 1994 survey was then followed in subsequent years and re-interviewed. The follow-up rules for the survey meant that new households are included in each wave where a person in the sample moved to another household. All individuals in the initial survey were to be followed and household and individual interviews were to be conducted as long as the person still lived in a private household. The fact that the same set of households is interviewed each year means that it is possible to study changes in the characteristics and circumstances of particular households or individuals over time, the unique feature of longitudinal or panel data. The European Community Panel Survey ran up until 2001, when it was discontinued, and so the wave conducted in 2001 was also the eighth and last wave of the LII survey.

By that point there had been substantial attrition. In other

words a substantial number of those included in the initial survey had dropped out over time, as is common in panel surveys. In the case of the LII Survey, slightly more than half the individuals interviewed in the original survey were no longer in the panel by 2000. At that point the Irish panel was supplemented by 1,500 new households, and these were also included in the base for the final follow-up in 2001. These additional households help in ensuring a more comprehensive and accurate cross-sectional picture in those years, but the analysis of dynamics has to rely on those who were in the panel for a longer period. With attrition on this scale, it was obviously important to see whether it was substantially affecting the composition of the sample – for example, were younger versus older people, urban versus rural, etc, more or less likely to drop out?

The impact on the sample distribution of individual and household characteristics in fact seems to have been relatively small, and weights were developed to counteract such measured effects. There may still have been some minor effect on the cross-sectional picture of poverty towards the end of the panel period, and the potential impact of attrition on the pattern of poverty dynamics needs to be kept in mind in the present context. (A comprehensive description of the response pattern in the LII Survey over the full eight years, the supplementation in 2000, the problem of attrition and the weights developed to deal with it is treated in Whelan *et al* 2003).

1.5 Structure of the Study

Having described the conceptual framework, methods and aims of the study in this chapter, we go on in Chapter 2 to set

out the background against which the dynamic analysis of poverty has to be set, in terms of the extent of relative income poverty for children in Ireland compared with other EU countries. Chapter 3 aims to capture the overall persistence of poverty for Irish children over the period for which we have suitable data, from 1994 to 2001. Chapter 4 then adopts a duration perspective, focusing on spells in income poverty and their duration. Chapter 5 develops this spell-based analysis by estimating formal statistical models of the processes involved in order to identify key influences on spell duration.

Chapter 6 takes a comparative perspective on this duration analysis, comparing patterns in Ireland with those in ten other EU countries for which similar longitudinal data are available. Chapter 7 shifts to focus on inter-generational transmission, relating the current experience of poverty back to childhood economic circumstances. Finally, Chapter 8 summarises the conclusions and brings out the implications for policies to tackle child poverty in Ireland.

Chapter 2

Relative Income Poverty for Irish Children

2.1 Introduction

Poverty among Irish children has been a major concern for many years, but these concerns were heightened from the mid-1980s due to the impact of macroeconomic and fiscal problems at the time. Nolan and Farrell's 1990 study of child income poverty for Combat Poverty showed that compared with the early 1970s, the relative position of households with children had deteriorated sharply in Ireland by the late 1980s, at which point children faced a much higher risk than adults of being in a household below relative income poverty lines. The dramatic increase in unemployment during the 1980s was seen to be the principal factor behind this worrying trend. A decade later, economic growth had accelerated to an unprecedented extent and unemployment had fallen sharply. Despite this, children continue to face a higher risk of falling below relative income poverty thresholds in Ireland than in most other EU member states.

While the focus of the present study is on dynamics, it is necessary to first sketch out the background against which this is to be seen, in terms of the extent of relative income poverty in Ireland versus other EU members and how that is

to be understood. This chapter starts by describing how poverty is conventionally measured, using relative income poverty thresholds, and also the 'consistent poverty' measure developed and applied in Ireland using both income and non-monetary indicators of deprivation. It then summarises the picture shown by relative income poverty lines in Ireland, and how this compares with other EU countries. The position of Irish children *vis-à-vis* the consistent poverty measure and how that has evolved over time is also summarised. Finally, we discuss how a dynamic perspective can help to hone in on those who are on low income for a substantial period, and therefore most likely to experience serious deprivation and exclusion.

2.2 Measuring Poverty

While the best way to measure poverty is still hotly debated, the most common approach in industrialised countries is to rely on household income to capture living standards. The key question is then how to set an income threshold to distinguish 'the poor' from 'the non-poor'. Comparative studies of poverty across European countries most often derive income poverty thresholds as proportions of average income (calculated taking the greater needs of larger versus smaller families into account) – what are called relative income poverty lines. Recent research on poverty, particularly in Ireland, has sought to go beyond reliance on income alone though using other information, notably on non-monetary deprivation indicators, and relative income poverty measures have serious limitations, particularly in a cross-section context, as we discuss below. Nonetheless, relative income poverty lines play a central role in the analysis of poverty and provide a useful starting-point for dynamic analysis in particular. It is therefore important to be clear at the outset how they are constructed.

The first issue to be decided is whose income – the individual's, the nuclear family's or the household's – is to be used to capture living standards or command over resources. Conventional practice is now to use the household as the income and resources sharing unit, which means treating all members of a particular household as having the same standard of living. Some analysis of the situation of individuals within households has been undertaken using Irish data, notably in studies for Combat Poverty (Cantillon and Nolan 2001; Cantillon, Gannon and Nolan 2004). Since our aim here is to start from conventional income poverty measures and focus on dynamics in a comparative context, we follow conventional practice in taking income of the household as the base – so a child will be counted as below an income threshold if and only if the household is below that threshold, and all children in households below a threshold are counted as below it.

A given income accruing to a single person household obviously does not mean the same as the same income going to a family of five. Again following conventional practice, equivalence scales are used to adjust household income for the differences in 'needs' associated with differing size and composition. The main scale we use, as in previous work, assigns a value of 1 to the first adult in the household, a value of 0.66 to each additional adult, and a value of 0.33 to each child; equivalised income is then derived by dividing total disposable income of the household by the number of 'adult equivalents' it contains.

To assess the sensitivity of the findings, two other scales will also be employed at certain points: the so-called OECD scale which attributes 0.7 to each additional adult and 0.5 to each child, and what is commonly termed the 'modified OECD

scale' which attributes values of 0.5 and 0.3 respectively. In calculating these scales, we define children as those aged under 14 years. Equivalent or equivalised household income is then total income divided by the number of equivalent adults in the household. We employ this age cut-off purely in constructing equivalence scales on the basis that the costs of those aged 14-17 are similar to those of an adult. However, in distinguishing between children and adults more generally throughout the study we take a child to be under 18 years of age.

In constructing relative income poverty lines, the mean or the median income may be used. The mean, though more generally understood, may be highly sensitive to a small number of very high incomes in a survey so we follow current conventional practice in using the median instead – the income above and below which half the distribution is found. This is calculated among individuals in the sample having attributed the equivalised income of their household to each individual. The unit of analysis in the study is predominantly then the individual. For example, we take all children in the sample and see how many of them are below relative income thresholds, are persistently below such thresholds, are in lone parent households, etc. At certain points it is more useful to take the household as the unit of analysis, in which case we then compare, for example, the situation of households with and without children, etc. It will be made clear at each point which approach is being adopted.

The limitations of purely income-based poverty measures have already been mentioned, and they can usefully be complemented by what has come to be termed the 'consistent poverty' measure, developed in studies using Irish data going back as far as the late 1980s. The consistent

poverty measure identifies a household as in poverty when it is below a relative income threshold *and* reporting experience of basic deprivation. The rationale is that, due to a complex combination of conceptual and practical measurement considerations, neither low income nor deprivation (as reflected in non-monetary indicators) may reliably capture generalised inability to participate in the life of society due to lack of resources – which is how 'poverty' is now most often defined in the industrialised countries, including in Ireland's National Anti-Poverty Strategy. So using both pieces of information – on income and deprivation – to focus on those 'consistently' worst off helps to increase the reliability of the measure, and a range of evidence which serves to support that conclusion has been presented in previous studies.

The choice of non-monetary indicators in constructing the consistent poverty measure is then key. Non-monetary indicators are based on whether people say they are doing without or cannot afford to have specific items or to participate in specific activities – for example whether they can afford a warm overcoat or a second pair of shoes, or are able to heat their house adequately in winter. A set of eight 'basic deprivation' items was originally developed and employed for this purpose using data from 1987 and then 1994, and the consistent poverty measure using these items was the basis for the global poverty reduction target adopted by the National Anti-Poverty Strategy.

We have discussed elsewhere (notably Layte, Nolan and Whelan 2000, Whelan *et al* 2003, 2005) the rationale for re-examining and adapting the specific indicators employed in measuring consistent poverty to reflect changes in living standards and expectations in the society over time. In particular, Whelan *et al* (2003) argued that an amended

version of the original basic indicators set might be more satisfactory for this purpose, while Whelan *et al* (2005) carry forward that discussion using data from the new EU-SILC for 2003. Here we will discuss trends over time for Irish children using the original set of items, leaving for the future the application of alternative approaches using the new data from EU-SILC outlined in Whelan *et al* (2005).

2.3 Relative Income Poverty for Irish Children

We now look at relative income poverty in Ireland for children versus adults on a cross-sectional basis. Table 2.1 shows the percentage of children, working-age adults and older people falling below 60 per cent of median income in 1994, 1997, 2000 and 2001, using the 1/0.66/0.33 equivalence scale (Whelan *et al* 2003). We see that in 1994 the percentage of children falling below this line was 24 per cent, twice as high as the corresponding figure for working-age adults and four times that for those aged 65 or over. The dramatic surge in economic growth and decline in unemployment after 1994 was then accompanied by only a marginal decline in the percentage of children falling below this threshold, with 23 per cent below 60 per cent of median income in 2001.

With the rate for working-age adults rising from 12 per cent to 17 per cent, however, there was a substantial narrowing in the gap between children and those adults – though the rate for children was still a good deal higher by 2001. The dramatic change was for those aged 65 or more: in 1994 only 6 per cent were below 60 per cent of median income, but by 1997 this had risen to 24 per cent and by 2001 it had risen to 44 per cent.

Table 2.1: Percentage of Persons Below 60 per cent Median Income Poverty Line by Age, Living in Ireland Surveys 1994, 1997, 2000 and 2001

	1994 %	1997 %	2000 %	2001 %
Children (aged under 18)	24.5	23.5	23.7	23.4
Adults aged 18-64	12.1	14.7	16.4	17.1
Adults aged 65 or more	5.9	24.2	38.4	44.1
All	15.6	18.2	20.9	21.9

With a lower relative threshold set at 50 per cent of median income, the relative income poverty rate for children rises over time, whereas with a higher threshold set at 70 per cent of the median it falls. In each case, though, by 2001 the rate for children is higher than that for working-age adults but lower than that for older people.[1]

It is worth noting that the new EU-SILC survey carried out by the CSO in the second half of 2003 and throughout 2004 also shows children (aged under 14) with a higher percentage below 60 per cent of median income than those aged 15-64, but a much lower percentage below that threshold than those aged 65 or over. The EU-SILC results for both 2003 and 2004 show about 21 per cent of children (under 14) below that threshold, compared with an overall average for the sample as a whole of about 19.5 per cent (see CSO 2005b).

Figures going back the longer period to 1973 – the first year for which such figures can be derived for Ireland – show the

[1] For details see Statistical Annex Tables A2.1 and A2.2.

percentage of children falling below relative income thresholds rising substantially between 1973 and 1987, and then staying high to 1994. So while the sharp increase in unemployment in the 1980s played a major part in the deterioration in the relative position of children in Ireland, the dramatic decline in unemployment from 1994 on did not see a corresponding decline.

The factors at work have been discussed at some length in previous studies (notably Nolan 2000; Nolan *et al* 2002; Whelan *et al* 2003). The fact that social welfare support rates have not kept pace with median household incomes – which has been boosted by not only rapid earnings growth and tax reductions but also sharply rising numbers at work – has been particularly important.

How much do relative income poverty rates vary depending on the equivalence scale employed? Table 2.2 shows for 1994 and 2001 the percentage of children below the 60 per cent of median relative income line with the three sets of equivalence scales described earlier. We see that the level of relative income poverty for children is indeed rather sensitive to the scale used. The so-called OECD (1/0.7/0.5) scale incorporates higher 'costs for children' than the 1/0.66/0.33 scale, and shows considerably higher child income poverty rates. The 'modified OECD' scale, although it incorporates slightly lower 'costs for children', also has slightly higher income poverty rates for children than the 1/0.66/0.33 scale (because using a different equivalence scale also shifts the income poverty threshold). Nonetheless, all three scales show very much the same trend over time in child income poverty.

Table 2.2: Percentage of Children Below 60 per cent of Median Income by Age, Living in Ireland Surveys 1994, 2001 with Alternative Equivalence Scales

	Percentage of children below threshold	
Equivalence Scale	1994	2001
1/0.66/0.33 ('Irish')	24.5	23.4
1/0.7/0.5 ('OECD')	29.4	25.5
1/0.5/0.3 ('modified OECD')	25.8	23.5

2.4 Relative Income Poverty for Irish Children in Comparative Perspective

We now look at how the position of Irish children measured *vis-à-vis* relative income thresholds compares with other EU countries. As part of the set of indicators on social inclusion agreed by the European Council at their meeting in Laeken in 2001, what are called 'at risk of poverty' rates for each member state are reported and monitored. This is the terminology now employed at EU level to refer to the percentage falling below various relative income poverty thresholds, set as proportions of median equivalised income in the country in question. The labelling reflects the recognition that low income increases the likelihood that someone will be in poverty, but that not all those reported as on low income at a particular point are likely to be experiencing generalised deprivation and exclusion.

As well as presenting figures for the population as a whole, these are also broken down by various characteristics, including age. This distinguishes *inter alia* those aged under

16, and Table 2.3 shows the percentage falling below 60 per cent of median income for children defined this way for 2001, as well as the corresponding figures for the overall population across the age ranges, for countries where this information is available from Eurostat (which at this stage does not include Cyprus, Latvia, Malta, and Slovakia).[2]

The figures must be approached with some caution from the point of view of comparability: those for the 'old' member states are mostly based on data from the European Community Household Panel, and so are harmonised in terms of the measurement of income, etc, but those for the new member states are from national sources and thus may not be fully comparable. Nonetheless, these are the best figures that Eurostat and the various national statistical offices could produce, and it is very useful indeed to now be able to obtain a comparative picture across the whole of the expanded Union.

We see first that 20 per cent of children across the Union were in households falling below the 60 per cent of median income threshold in their own country in 2001. (Note that the threshold applied is not an EU-wide one but strictly country-specific.) This is a good deal higher than the corresponding figure for the population as a whole, which was 15 per cent. Looking across the various countries, the rate for children exceeds that for the entire population in 15 out of the 20 countries for which figures are available.

[2] These figures for the population as a whole have been published by Eurostat (in graphical form) in a recent issue of Statistics in Focus (2005); the various breakdowns are not published as yet but can be extracted and downloaded from an extensive and very valuable database relating to the Laeken indicators now available on the Eurostat website.

Focusing on Ireland, we see first that just over one-quarter of Irish children are in households below the 60 per cent threshold in 2001. This was substantially higher than both the figure for the Irish sample as a whole, which was 21 per cent, and the EU-25 average for children which was 20 per cent. Looking across the member states, only Portugal had a (marginally) higher rate for children, while Spain, Italy and the UK had only slightly lower ones. The figure for Ireland is higher than the 23 per cent shown by the LII Survey and reported in Table 2.1 above: the definition of a child and the income measure differ, and the ECHP sample was much smaller.[3]

Slightly more recent figures are available for some of the EU member states, as shown in Figure 2.1, relating to 2003. Since the ECHP was discontinued from 2001, these are from a variety of sources: some (including Ireland) are from the new EU-SILC which has got under way in some countries and is being extended to all member states, whereas others are from national sources. These are often not considered to be directly comparable with previous figures, and Eurostat have flagged statistical 'breaks' in the series in a considerable number of countries, including Ireland. The picture they show for Ireland is now somewhat different. The percentage of children falling below the 60 per cent threshold is lower, at 21 per cent, and compares with a 19 per cent rate for the Irish sample as a whole. However, this is still high compared with most other countries for which figures are available for 2003.

[3] In the Eurostat figures children are aged under 16 rather than 18, income is annual rather than current, and data are for the ECHP sample only, whereas the LII Survey for that year included a substantial additional sample.

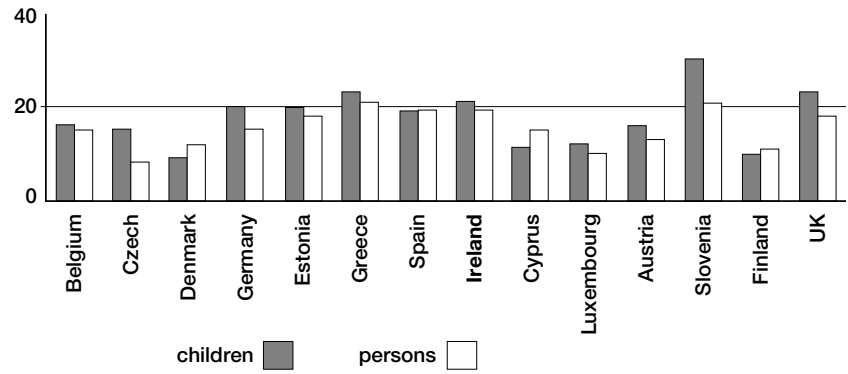
Table 2.3: Percentage of Children Below 60 per cent of Median Income, Ireland and Other EU Countries, 2001

Country	Percentage of children below 60 per cent of median equivalised income	Percentage of persons below 60 per cent of median equivalised income
Belgium	12	13
Czech Republic	12	8
Denmark	7	10
Germany	17	13
Estonia	19	18
Greece	18	20
Spain	26	19
France	16	13
Ireland	**26**	**21**
Italy	25	19
Lithuania	20	17
Luxembourg	18	12
Hungary	15	11
Netherlands	18	12
Austria	13	12
Poland	22	16
Portugal	27	20
Slovenia	9	11
Finland	9	11
Sweden	7	9
UK	24	19
EU 25	**20**	**15**

Source: Eurostat website:

http://epp.eurostat.cec.eu.int/portal/page?_pageid=0,1136184,0_45572595&_dad=portal&_schema=PORTAL

Figure 2.1: Percentage of Children and Persons Below 60 per cent of Median Income in EU Countries, 2003



Source: Eurostat website (see Table 2.5), and CSO (2005b) for Ireland.

The most robust conclusion from this comparative perspective thus appears to be that Ireland is in a group of countries with relatively high income poverty rates for children – together with for example Spain, Greece, Portugal, and the UK. However, whereas in the past this reflected both a relatively high income poverty rate for the Irish population as a whole and a higher-than-average risk within Ireland for children, by 2003 it was mostly a result of Ireland's high overall relative income poverty rate. The factors underpinning that have been investigated in for example Callan *et al* (2004), and we will return to them towards the end of this study having explored what a dynamic perspective adds.

A comparative picture of income poverty for children that goes beyond the EU has been presented by UNICEF in the latest of their series of Report Cards (UNICEF 2005). Using a relative threshold set at 50 per cent of median income in the country in question, it shows Ireland as having the fifth-highest percentage of children below that threshold of the 26 OECD countries covered. Countries outside the EU such as

Australia, Canada, Japan and New Zealand have rates that are similar to Ireland (around 15 per cent), while the USA and Mexico are the only countries with much higher rates than that (see Figure A2.1 in the Statistical Annex).

2.5 Consistent Poverty and Irish Children

We have already discussed how non-monetary indicators of deprivation can complement household income in attempting to identify those most in need, notably via the 'consistent poverty' measure developed at the ESRI and incorporated into the National Anti-Poverty Strategy's targets. We now look at how Irish children have fared in terms of that measure, as opposed to relative income poverty. To be counted as 'consistently poor', a household must both fall below a relative income threshold (usually 60 per cent or 70 per cent of median income) and be reporting basic deprivation. What will be seen as 'basic deprivation' would be expected to change over time, as living standards and expectations rise, and we have explored the implications for capturing 'basic deprivation' and consistent poverty elsewhere, as noted earlier.

Here, however, we concentrate on trends when using the original set of eight non-monetary indicators employed for this purpose. We also concentrate on the figures based on setting the income threshold at 70 per cent of the median, because our research has shown that deprivation levels tend to be no lower in the income range between the 60 per cent and 70 per cent thresholds than they are just below the 60 per cent threshold.

The 1994 LII Survey showed 22 per cent of children in consistent poverty (using the 70 per cent of median income

threshold and the original 8 'basic' deprivation items). This was more than 50 per cent higher than the consistent poverty rate for the sample as a whole. By 2001 the corresponding figure for children was down to 6.6 per cent, and this was about 33 per cent higher than the overall average. This reflected both the decline in relative income poverty rates for children already described, and a sharper fall in measured basic deprivation levels for households with children than for other households. Children had higher consistent poverty rates in 2001 not only than working-age adults but also – in sharp contrast to the picture shown by relative income poverty rates – than older people, as seen in Table 2.4.

Table 2.4: Percentage of Children and Adults in Consistent Poverty, Living in Ireland Survey 2001

	2001 Percentage
Children (aged under 18)	6.5
Adults	4.3
Aged 18-64	4.3
Aged 65 or more	3.9

As already noted, the results from the new EU-SILC survey show higher levels of measured deprivation than the LII Surveys for 2000 and 2001; for a variety of reasons the two sources are not directly comparable in this respect. The EU-SILC results thus show higher levels of consistent poverty, both for adults and children. The 2004 results show 9.5 per cent of children aged 14 or under in consistent poverty,

compared with 6.5 per cent of adults aged 15-64, 3.3 per cent of older people aged 65 or more, and an overall average for the sample as a whole of 6.8 per cent. This is very much the same relationship between children and working-age adults as that shown by the 2001 LII survey, albeit at higher levels – with children facing a 50 per cent greater probability of being in consistent poverty. The gap between children and older people is greater, though, because consistent poverty for the latter is even lower in EU-SILC than it was in the LII Survey.

2.6 Conclusions

This study is focused on the dynamics of poverty for Irish children, but to put that in context this chapter has discussed how poverty is measured and the cross-sectional picture these measures show. The conventional approach to measuring relative income poverty was set out, and the extent of relative income poverty for Irish children was then compared with both the corresponding figures for Irish adults and for children in other EU countries.

We saw that the percentage of children falling below 60 per cent of median (equivalised) income was quite stable in Ireland from 1994 to 2001, at about 24 per cent. Children had higher relative income poverty rates than working age adults throughout the period but the gap between them narrowed over time; however, rates for older people were very much higher than those for children by 2001. New results for 2003 and 2004 show slightly lower relative income poverty rates overall, but those for children still higher than for working-age adults and a good deal lower than for older people.

A comparison across the enlarged European Union was made for 2001, showing one in five children in households falling below 60 per cent of the median income of their own country. This was considerably higher than for adults, on average. More up-to-date figures for 2003 for some countries still show Ireland in a group of EU countries with relatively high risk of poverty rates for children; non-EU countries in the OECD such as Australia, Canada and New Zealand have similar rates, though the USA is considerably higher.

We have emphasised in this chapter, and investigated in considerable depth in previous publications, the serious limitations of relative income poverty measures taken alone in capturing poverty. Non-monetary indicators of deprivation, and the consistent poverty measure incorporating both low income and basic deprivation, help to give a more rounded picture. Consistent poverty rates for Irish children as measured in the LII Surveys fell sharply between 1994 and 2001, but remained higher than those for working-age adults and much higher than those for children – a pattern also seen in the results for 2003 and 2004 from the EU-SILC survey for Ireland.

Income and in particular income dynamics over time play a central role in household command over resources, and in the extent and nature of deprivation a household experiences. The key aim of the study is to explore what can be learned about the extent and nature of income dynamics as they affect Irish children, by exploiting the longitudinal nature of the LII Surveys. It is to this dynamic analysis that we now turn.

Chapter 3

Child Poverty Persistence from 1994 to 2001

3.1 Introduction

We now turn to the dynamics of low income and income poverty as it affects Irish children. As pointed out in our introductory chapter, two distinct but related perspectives can be adopted in studying income poverty dynamics. One focuses on the overall experience of poverty over a period of years, the other on the poverty spell. This chapter adopts the first perspective, focusing on the number of years spent by children below the income thresholds over the life of the panel survey. Chapters 4 and 5 focus on spells in poverty.

We first provide a descriptive account of low income persistence for children versus adults, and look at the types of household where children are most likely to remain in poverty for long periods of time or experience recurrent spells of poverty. We then estimate econometric models to identify more precisely the key characteristics associated with persistent or extensive low income. Finally, we complement the analysis of low income persistence by looking at the extent to which children spent time both below relative income thresholds and experiencing basic deprivation.

3.2 Measuring Poverty Persistence

Previous research on poverty dynamics tended to focus on the duration of spells in poverty. However, it became clear that this approach missed an important facet of the experience of poverty, i.e. that some of those whose poverty spells end relatively quickly do not 'escape' very far and soon fall back below the poverty threshold. Such people may spend a substantial proportion of their time in poverty even if their individual spells below the threshold are relatively short. This highlighted the importance of capturing the overall length of time people spend in poverty over a period of years.

To achieve this, in studying income poverty dynamics for Irish children, we start by measuring the number of years spent by children below the income thresholds over the life of the LII panel survey. The panel ran for eight years in all, and in this chapter we concentrate on those present throughout, in other words those responding in each survey.[4] We first count the number of years each individual spent below the relative income thresholds described in the previous chapter, comparing the experience of children, working-age adults in households with children, working-age adults in households without children, and older people.

We distinguish between those experiencing no poverty, one transitory period in poverty, recurrent spells of poverty, or one long spell in poverty over the eight years of the panel survey.

[4] We also carried out a similar analysis for those who were in the sample for at least five years, and this showed similar results. In the comparative analysis presented in Chapter 6 we include all those present for at least five years, because otherwise the sample numbers would be very small in the countries with low relative income poverty rates.

We then focus on the children found to be in each of these persistence categories, and examine the characteristics of their households at the start of the observation period. In other words, looking at their households at the outset, what are the factors that would help us predict their subsequent experience *vis-à-vis* the relative income thresholds? We do this first in a descriptive fashion, and then in Section 3.4 via more formal statistical modelling.

Since our interest here is in children, how a child is defined in measuring poverty dynamics is obviously central. In a cross-section context this is straightforward and in the previous chapter we established a child's age as being under 18 years. In a dynamic perspective, though, we are observing individuals in the panel survey in successive years, and some will be under 18 years for some of the period but reach 18 years during the life of the panel survey. For simplicity we define a child for the purpose of our dynamic analysis as those aged under 18 years throughout the period we observe them in the panel. To keep the presentation of the findings manageable we also present findings for the 1/0.66/0.33 equivalence scale only. The use of the other equivalence scales described in Chapter 2 does not substantially affect the results.

3.3 Poverty Persistence for Irish Children

We begin our analysis by looking at the number of years children spent in households below the 60 per cent relative income threshold. Table 3.1 shows that half of all the children observed in the panel did not spend any time in a household below that income threshold. About 23 per cent spent one or two years below the 60 per cent threshold, 15 per cent spent

between three and five years, and 13 per cent spent six or more years below the threshold. Only 4 per cent were below the threshold in all eight years, but it is clear that substantially more than that had significant experience of poverty over the period.

Table 3.1: Number of Years Below 60 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

Years below threshold	Children	Working-age adults with children	Working-age adults without children	Adults aged 65 +	All
	%	%	%	%	%
0	49.7	53.3	60.4	41.7	52.5
1	13.6	13.8	15.0	13.7	14.0
2	9.1	7.9	9.0	8.6	8.5
3	6.6	7.8	5.6	9.0	7.2
4	4.1	5.0	3.1	10.1	5.1
5	4.4	3.9	1.9	6.5	3.9
6	4.3	3.5	1.4	3.9	3.2
7	4.1	2.8	2.1	3.8	3.1
8	4.3	2.1	1.5	2.7	2.5
Total	100.0	100.0	100.0	100.0	100.0

To put the situation of children in context, it is useful to compare their experience with that of adults. In doing so we distinguish adults who are of working age and those aged 65 or over, since we would expect their experience of low income to be rather different. (Consistent with our definition of a child, someone who is aged 18 or over at any point in

the observation period is counted as an adult; similarly someone aged 65 or over at any point is counted as an older person.) We also distinguish, among those of working age, between those who are in a household with children and those in a household without children.

We then see from Table 3.1 that the pattern of poverty experience for working-age adults in households with children is very similar to that for children – which is not surprising since both are being assessed on the basis of the income of the household. However, working-age adults without children experienced less income poverty, with 60 per cent spending no time below the 60 per cent threshold and at the other extreme only 5 per cent spending six or more years below the threshold. Turning to those aged 65 or over, they were most likely to have spent time below the threshold – only 42 per cent having avoided income poverty altogether – but had about the same proportion as children, with five or more years below the threshold.

Examining similar results with the 50 per cent of median threshold (see Statistical Annex, Table A3.1) shows two-thirds of children avoided falling below that threshold at any point and only about 1 per cent spent six or more years below it. With the 70 per cent of median threshold, on the other hand (Table A3.2), 60 per cent of children spent some time below that income line and one in five spent six years or more below it.

We now use information about both the number of years spent below the threshold and the pattern of those years to categorise individuals into four persistence categories:

- Persistent non-poor: never below the income poverty threshold

- Transient poor: below the income poverty threshold for only one spell of no more than two years
- Recurrent poor: below the income poverty threshold more than once, but not for more than two years in any spell
- Persistent poor: below the income poverty threshold for a spell of three years or more.

Table 3.2 shows that, as we have already seen, half of all children spent no time below the 60 per cent threshold, and they thus fall into our 'persistent non-poor' category. About 19 per cent had just one relatively brief period in income poverty, 10 per cent had recurrent periods below the threshold, and 21 per cent spent a substantial continuous period below the threshold.

Table 3.2: Income Poverty Persistence *vis-à-vis* 60 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

	Children	Working-age adults with children	Working-age adults without children	Adults aged 65 +	All
	%	%	%	%	%
Persistent non-poor	49.7	53.3	60.4	41.7	52.5
Transient poor	19.3	18.2	21.4	19.2	19.4
Recurrent poor	9.7	10.7	5.4	6.9	8.6
Persistent poor	21.4	17.8	12.7	32.1	19.5
Total	100.0	100.0	100.0	100.0	100.0

Working-age adults with children again show a very similar picture to children. Interestingly, working-age adults without children are actually more likely to experience transient low income than children or adults with children, but have lower percentage in both the recurrent and persistent income poor categories. Of those aged 65 or over, by contrast, a relatively low proportion experience recurrent poverty but a high percentage are persistently income poor.

Once again the 50 per cent of median threshold shows similar patterns for children and working-age adults to the 60 per cent threshold, but for those aged 65 or over the level of persistent low income is much lower, showing the sensitivity of income poverty rates for older people to the precise location of the income threshold. This comes about, as noted in previous studies, because the incomes of older people are heavily concentrated at the levels of social welfare pensions. The corresponding results for the 70 per cent threshold show high levels of persistent income poverty for children and for adults with children, with 31 per cent in that category, but an even higher percentage (44 per cent) of those aged 65 or over are persistently below that threshold.[5]

3.4 Characteristics Associated with Income Poverty Persistence

Having mapped out the extent of relative income poverty persistence for Irish children, and compared their situation with that of adults, we now want to look at the characteristics that might be associated with more versus less experience of income poverty. As in a cross-sectional analysis, although

[5] See Tables A3.3 and A3.4 of the Statistical Annex.

children are the focus it is primarily the characteristics of their households that matter in terms of poverty – whether there are adults in work, their marital status, the number of adults and children in the household, etc.

In a cross-sectional analysis one seeks to relate such characteristics of the household to current poverty status. For example, are those below an income poverty threshold predominantly larger households, with no-one in work, etc? Here, in looking at experience of income poverty over a period, these characteristics may themselves change over time. Family size, labour force status, marital status, etc, may all change over the period being examined. We take that directly into account later in the study when focusing on spells in poverty and the extent to which entry into and exit from income poverty can be related to precisely such changes in household structure and labour force status.

Here, though, our aim is to relate poverty experience over the period to *initial* characteristics – the type of household in which the child was living when first captured in the survey. Having observed the child's experience of income poverty in subsequent years, we are then in a position to say which initial characteristics are most strongly associated with extensive subsequent time below the income threshold. We concentrate the analysis on the 60 per cent of median threshold.

We begin by focusing on the labour force status of the household reference person (HRP), using the definition adopted by Eurostat of the person responsible for the household's housing costs (or the older of the people responsible). Table 3.3 shows that 70 per cent of children were in households where the reference person was

employed initially, and these were least likely to experience any time below the 60 per cent threshold. Nonetheless, about one-third of those children did spend some time below the threshold. About 15 per cent of children were in households where the reference person was unemployed initially, and almost all these spent some time below the 60 per cent threshold – only 9 per cent avoided it entirely. What is perhaps even more striking is that over half were persistently poor over the period, even though unemployment fell so markedly. Very few children were in households where the reference person was retired. About 13 per cent were in households where the reference person was not active in the labour force, and four-fifths of these also spent some time below the income threshold.

Table 3.3: Income Poverty Persistence for Children by Household Reference Person Labour Force Status (60 per cent of median)

	Persist-ent Non-poor	Transient Poor	Re-current Poor	Persist-ent Poor	Total	Percentage of all children
	%	%	%	%	%	%
Employed	65.2	17.7	7.0	10.1	100.0	69.7
Unemployed	8.7	20.9	17.0	53.4	100.0	15.5
Retired	38.1	33.3	9.5	19.0	100.0	1.6
Inactive	17.1	24.6	14.9	43.4	100.0	13.2

We now carry out a similar analysis, still focused on the household reference person's employment status, but now in terms of that person's employment 'precarity'. This distinguishes those who are

- employed and had no unemployment during the previous five years
- currently inactive
- employed and had no unemployment during the previous calendar year but were unemployed in the previous five years
- employed but were unemployed during the previous calendar year
- unemployed but were unemployed for less than six months in the previous calendar year
- unemployed and were unemployed for six months or more in the previous calendar year.

Using these categories, we see in Table 3.4 that about 62 per cent of children were in households where the reference person was both employed initially and had no unemployment in the previous five years. While 16 per cent of these then experienced some transient income poverty, only 16 per cent were either recurrently or persistently poor. Those who were employed when initially observed but had some previous experience of unemployment – in the previous year or five years – were more likely to experience poverty.

Where the reference person was not active in the labour force when first observed, only about 20 per cent had no experience of relative income poverty, and over 40 per cent reported persistent poverty. Where the reference person was unemployed when first observed but had less than six months unemployment in the previous year, only 11 per cent of the children avoided some experience of income poverty and about 52 per cent were either recurrently or persistently below the 60 per cent threshold – again, despite the dramatic

decline in unemployment that took place over the period during which income poverty is then measured. Finally, where the reference person was initially unemployed and had also been unemployed for more than six months in the previous year very few children avoided some experience of poverty, and about three-quarters were either recurrently or persistently below the 60 per cent threshold.

Table 3.4: Income Poverty Persistence for Children by Household Reference Person Employment Precarity (60 per cent of median)

	Persist-ent non-poor	Transient poor	Re-current poor	Persist-ent poor	total	Percentage of all children
	%	%	%	%	%	%
Employed. No unemployment	67.7	16.4	6.5	9.4	100	61.7
Employed but unemployed in last five years	40.3	25.4	10.4	23.9	100	5.1
Employed but unemployed in previous year	39.7	28.6	9.5	22.2	100	4.8
Inactive	19.4	25.5	14.3	40.8	100	14.9
Unemployed for less than 6 months	11.1	37.0	22.2	29.6	100	2.1
Unemployed for 6 months or more	7.3	17.3	18.7	56.7	100	11.4

As well as the employment status and experience of the household reference person, the number of other adults in the household at work clearly matters. This is in fact a key distinction between the households of children experiencing substantial income poverty over the period and those experiencing little or no time below the income threshold. The average number of persons employed for children who avoided falling below the threshold entirely was close to 2; for those who experienced only transitory income poverty it was 1.3. Children experiencing recurrent poverty were in households with an average of 0.9 persons employed at the outset of the observation period, and for those experiencing persistent poverty that average was only 0.5.

We look in more detail at the employment status of the adults in the household in Table 3.5, focusing now on the household reference person and his/her partner if any (and still concentrating on the characteristics of children's households). We see that about 30 per cent of children are in households where there were two partners present and both were employed when first observed in the panel. Such children mostly avoided falling below the 60 per cent income threshold entirely, and only 5 per cent experienced recurrent or persistent poverty over the period.

Almost 40 per cent of children were in households where both partners were present but only the male was employed. These children faced a substantially higher probability of experiencing income poverty, and 27 per cent had recurrent or persistent income poverty. However, for the much smaller number of children in households where the female but not male partner was employed at the outset, fully three-quarters spent some time below the income threshold and transient income poverty was particularly common.

Table 3.5: Income Poverty Persistence for Children by Household Work Structure (60 per cent of median)

	Persist-ent non-poor	Transient poor	Re-current poor	Persist-ent poor	total	Percentage of all children
	%	%	%	%	%	%
Both partners employed	83.1	11.6	2.8	2.5	100	30.3
Only male employed	50.4	22.7	10.2	16.7	100	38.2
Only female employed	23.9	39.1	23.9	13.0	100	3.5
Neither employed	8.0	12.2	17.4	62.4	100	16.3
Single male working	56.5	21.7	21.7	0.0	100	1.8
Single female working	55.6	33.3	11.1	0.0	100	1.4
Single male not working	17.6	11.8	35.3	35.3	100	1.3
Single female not working	14.9	38.3	3.2	43.6	100	7.2

Where there was only one partner present but he/she was employed, the pattern of income poverty persistence was similar to a couple with the man employed – with little difference between the profiles for employed lone men versus women. However, where only one partner is present and was not employed when first observed, poverty experience and persistence was much greater. In particular, 7 per cent of children were in households where only the female partner

was present and she was not employed, and only 15 per cent of these children avoided some experience of income poverty over the period, while approximately 44 per cent were persistently below the threshold. It is striking though that the situation of children in couple-headed households where neither partner was employed initially – accounting for 16 per cent of all children – had an even worse outcome. Almost all these children spent some time below the income threshold, 17 per cent experienced recurrent income poverty, and 62 per cent were persistently income poor.

Apart from relationship with the labour force, it is worth looking at the marital status and gender of the household reference person and how that relates to income poverty experience/persistence for children. Table 3.6 shows that over 88 per cent of children were in households where the reference person was married. About 47 per cent of these children spent some time below the 60 per cent of median threshold over the period they were in the panel survey, and 20 per cent were persistently poor – so this marital status is far from being a guarantee that the child will avoid poverty. However, substantially more time below the threshold was experienced by the 4 per cent of children where the reference person was single, and even more by the 8 per cent in households where he/she was separated, divorced or widowed.

Turning to the gender of the reference person, Table 3.7 shows that only 14 per cent of children were in households where the reference person was female, but they experienced more poverty – both transient and persistent – than children in households where the reference person was male.

Table 3.6: Income Poverty Persistence for Children by Household Reference Person Marital Status (60 per cent of median)

	Persist-ent non-poor	Transient poor	Re-current poor	Persist-ent poor	total	Percentage of all children
	%	%	%	%	%	%
Married	52.7	17.6	9.5	20.1	100	88.5
Separated/ Divorced/ Widowed	24.3	31.1	9.7	35.0	100	7.8
Single	30.6	34.7	12.2	22.4	100	3.7

Table 3.7: Income Poverty Persistence for Children by Household Reference Person Gender (60 per cent of median)

	Persist-ent non-poor	Transient poor	Re-current poor	Persist-ent poor	total	Percentage of all children
	%	%	%	%	%	%
Male	52.5	17.5	9.7	20.4	100.0	85.6
Female	33.0	30.4	9.4	27.2	100.0	14.4

Finally, we look at the relationship between relative income poverty over time and the extent to which the household depends on social welfare transfers for its income (at the outset of the observation period). To do so we derive the proportion of total disposable household income that came from social welfare transfers (excluding child benefit), and distinguish those where this is less than one-quarter, between a quarter and a half, between a half and three-quarters, and

more than three-quarters of all income. Table 3.8 shows that there is a direct and pronounced relationship between the extent of dependence on social welfare at the outset and overall experience of relative income poverty over time in the panel.

Table 3.8: Income Poverty Persistence for Children by Household Welfare Dependence (60 per cent of median)

Percentage of household income coming from social welfare	Persistent non-poor	Transient poor	Recurrent poor	Persistent poor	total	Percentage of all children
	%	%	%	%	%	%
<25%	66.3	18.3	6.5	9.0	100.0	68.9
Between 25-50%	31.9	25.5	16.0	26.6	100.0	7.1
Between 50-75%	23.8	28.6	19.0	28.6	100.0	4.8
>75%	3.1	18.4	16.5	62.0	100.0	19.2

Of the 70 per cent of children who were in households where less than one-quarter of the income came from social welfare, two-thirds avoided time below the threshold altogether and only 15 per cent experienced either recurrent or persistent low income. The proportion avoiding income poverty then goes steadily down and the proportion experiencing persistent poverty goes up as the extent of welfare dependence rises. At the extreme, where social welfare

initially accounted for more than three-quarters of household income – which was the case for 19 per cent of children – only 3 per cent avoided income poverty altogether and fully 62 per cent were persistently below the 60 per cent threshold. When we remember that this relates to welfare dependence only at the start of the period, this is a striking level of predictability of subsequent experience of income poverty even in a buoyant macroeconomic context where levels of welfare dependence due to unemployment fell sharply.

3.5 Statistical Analysis of Initial Characteristics and Income Poverty Persistence

Having looked in some detail at how income poverty persistence for children varied by some key characteristics of their household, we now proceed to model that relationship more formally. To do so we use what is known as an ordered logit econometric model to estimate the impact of different factors on the poverty persistence category one ends up in, using the four categories distinguished in the previous section and with the ordering of those categories from no experience of relative income poverty through to persistent poverty. Estimating this model allows us to see what impact various characteristics of the individual and of his/her household have on the probability of being in the categories with more rather than less experience of relative income poverty (see box).

Table 3.9 shows the results of estimating this model with a varying set of socio-economic variables included:

- Model 1 where the only predictor is whether the individual is a child

- Model 2 where age, gender, education level, labour force status and self-reported health status of the household reference person is added
- Model 3 which adds the number of children in the household
- Model 4 which includes the ages of the children.

The Ordered Logit Model

This statistical model involves assuming that the categories being studied, in this instance the four categories of the poverty profile, have a certain order, and that the intervals between them are equal (that is, the 'slopes' expressed by the predictors are equal across the levels of the profile). A coefficient greater than one estimated for a particular independent variable then indicates that the factor in question increases the probability of experiencing recurrent and persistent poverty, and conversely a smaller coefficient indicates it reduces that probability.

The results for Model 1 show that being a child does have a significant impact in increasing persistent poverty risk when no other factors are taken into account, though both the size of the coefficient and its statistical significance level suggest this is quite modest.

Model 2 suggests that where the household reference person is female the risk of longer and more frequent income poverty spells is somewhat lower. Age of the reference person does not have a significant effect in either direction when included in the broad set of characteristics. However, living in a

Table 3.9: Ordered Logit Model Predicting Poverty Profile Based on 60 per cent of Median Income 1994-2001

	Model 1		Model 2		Model 3		Model 4	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Individual is a child	1.11	*	1.23	***	0.98	n.s	1.04	n.s
HRP is female			0.72	***	0.79	**	0.80	**
HRP aged 25-34			0.75	n.s	0.49	***	0.50	***
HRP aged 35-44			0.92	n.s	0.55	**	0.50	***
HRP aged 45-54			0.85	n.s	0.64	*	0.54	**
HRP aged 55-64			1.62	*	1.64	*	1.48	n.s
HRP has no quals			13.51	***	13.90	***	13.96	***
HRP has Inter level			6.53	***	6.79	***	6.86	***
HRP has Leaving level			3.97	***	4.14	***	4.19	***
Unemployed			3.71	***	3.86	***	3.84	***
Retired			0.57	***	0.63	***	0.63	***
Inactive			1.99	***	1.97	***	1.95	***
Number employed			0.43	***	0.43	***	0.43	***
HRP fair/poor health			1.28	*	1.34	**	1.38	**
Less than 3 children					1.88	***	1.88	***
3 or more children					3.63	***	4.09	***
Children aged 12-17							1.32	**
Children aged 5-11							1.20	n.s
Children Aged <5							0.86	n.s
Cut-point 1	–0.28		0.38		0.66		0.66	
Cut-Point 2	–0.49		1.54		1.86		1.86	
Cut-point 3	0.92		2.19		2.53		2.52	
Log-likelihood	–7704		–6204		–6107		–6095	
Number of cases	6091		6070		6070		6070	

Note: B=Coefficient for the variable; Sig=Level of significance;
*=statistically significant at 10% level; **=significant at 5% level;
***=significant at 1% level; ns=not significant at 10% level.
HRP=Household Reference Person.

household where the reference person has lower levels of education is associated with a very pronounced increase in the risk of persistent poverty, particularly for those with no second-level qualifications. Where the reference person is unemployed or inactive the risk of persistent and recurrent poverty is also higher; similarly the higher the number of persons employed in the household, the lower the probability of recurrent and persistent poverty. Where the reference person is reporting less than good health the likelihood of recurrent or persistent income poverty is also higher.

Model 3 then adds in the number of children in the household, with the results suggesting that having three or more children substantially increases the risk of persistent income poverty.

Finally, when the ages of the children are added in Model 4 the results show no significant impact for the numbers in the younger age groups, but the number of teenagers does have a significant effect in increasing the probability of recurrent or persistent relative income poverty.

3.6 Income Poverty Persistence and Deprivation

In analysing the extent of persistent relative income poverty and the factors associated with it, the underlying concern is of course that those on low income for a sustained period are likely to be exposed to much more severe hardship than those who experience low income only for a short time. One way of capturing households' actual experience of deprivation and exclusion is by using information from household surveys not only on income but also on non-monetary indicators of deprivation – things that people are unable to have or do because of lack of money.

Such non-monetary indicators have been extensively used in research on poverty in Ireland both to analyse deprivation itself across different dimensions, and in combination with low income to identify those who are 'consistently poor'. Those falling below relative income thresholds and experiencing what has been labelled 'basic deprivation' can be seen as experiencing generalised deprivation due to lack of resources. This 'consistent poverty' measure currently provides the basis for the global poverty reduction target adopted for the National Anti-Poverty Strategy.

The specific deprivation indicators required to identify those experiencing generalised deprivation will change over time as standards rise, in light of changing expectations and perceptions about what is minimally adequate. The original set of eight items used in constructing the consistent poverty measure included ones relating to food, clothing, heating the house and debt or arrears for ordinary living expenses. The choice of an amended set has been investigated in several studies (notably Nolan *et al* 2002 and Whelan *et al* 2003) as further years of LII survey data became available, and is currently being investigated once more using data from the new EU-SILC survey. However, to date the consistent poverty target used for NAPS purposes has been framed in terms of the original set, and here we focus on consistent poverty measured in that way.

As well as the set of deprivation indicators to be employed, one must also choose the relative income poverty threshold to be used in measuring consistent poverty. While 60 per cent or 70 per cent of the median could be selected (and both are mentioned in the target specified in the National Anti-Poverty Strategy), here we concentrate on the 70 per cent threshold. We do so because, as noted in the previous chapter, levels of

deprivation are no lower for households between 60 per cent and 70 per cent of median income than they are for households close to but below the 60 per cent threshold. Furthermore, those between 60 per cent and 70 per cent and experiencing basic deprivation report high levels of difficulty making ends meet. We therefore concentrate on the more inclusive measure of consistent poverty.

We first look at the extent to which children were in consistent poverty over the life of the LII panel survey, in order to have a comparison with the extent of low income persistence discussed earlier in the chapter; we then move on to look at the relationship between income poverty persistence and consistent poverty for children over the period.

Table 3.10 shows the number of years children versus working-age adults versus older people spent in consistent poverty over the life of the panel (with the 70 per cent of median income threshold used as the income element of the measure). We see first that 71 per cent of children did not experience consistent poverty at any point. This is much higher than the 50 per cent who were never below the 60 per cent of median income threshold, or the 41 per cent who were never below the 70 per cent of median threshold.

We then see that about 14 per cent of children spent one or two years in consistent poverty, about 9 per cent spent between three and five years, and 5 per cent spent six or more years out of the possible maximum of eight in consistent poverty. While these figures are substantially lower than the corresponding percentages below the relative income thresholds, the fact that about 15 per cent of children spent three or more years in consistent poverty is still

Table 3.10: Number of Years in Consistent Poverty (With 70 per cent of Median Income), Children Versus Working-Age Adults Versus Older People, 1994-2001

Years in consistent poverty	Children	Working-age adults with children	Working-age adults without children	Adults aged 65 +	All
	%	%	%	%	%
0	71.4	74.8	86.3	80.5	77.8
1	8.5	8.8	6.5	10.5	8.4
2	5.3	5.4	1.9	3.0	4.1
3	2.9	3.3	1.3	1.7	2.5
4	1.1	0.7	1.5	1.6	1.1
5	5.2	3.6	1.3	1.0	3.0
6	2.6	1.6	0.6	0.8	1.4
7	1.4	0.8	0.5	0.8	0.9
8	1.5	0.9	0.1	0.1	0.7
Total	100.0	100.0	100.0	100.0	100.0

potentially very significant in terms of both their shorter-term and long-term well-being.

Table 3.10 also shows that, as was the case with the income poverty thresholds alone, the overall extent of experience of consistent poverty for children is very similar to that for working-age adults with children. Again as we saw with the income poverty thresholds, working-age adults without children appear much less exposed to poverty, with only 14 per cent experiencing consistent poverty at any point and only 5 per cent experiencing three or more years in consistent poverty. The picture for older people, on the other hand, is now rather different. On a purely income basis, we saw earlier that older people were more likely than children, and much

more likely than working-age adults without children, to have spent time below the thresholds. When we now look at consistent poverty, though, we see that only about 20 per cent of older people experienced any consistent poverty and 6 per cent experienced three or more years – so they were rather less exposed to consistent poverty than children, though somewhat more than working-age adults without children.

We now focus on the relationship between persistent low income and consistent poverty for children. Table 3.11 shows first that, looking forward from 1994, over three-quarters of the children who were in consistent poverty in that year went on to experience persistent low income (*vis-à-vis* the 70 per cent of median threshold) over the life of the panel. Most of the remainder experienced recurrent periods below the income threshold.

The table then shows that, focusing on those who were in consistent poverty in 2001 – which is of course a substantially smaller proportion of all children given the sharp decline in deprivation levels over the period – an even higher proportion had experienced persistent low income over the previous number of years back to 1994. Fully 89 per cent of the children in consistent poverty in 2001 had experienced persistent low income, and almost all the rest had recurrent low income in terms of the 4-category grouping we have used in this chapter to summarise persistence. The table also shows the corresponding figures for the sample as a whole rather than only children, where a similar pattern is seen.

Finally, Table 3.12 reverses the perspective and looks at the experience of consistent poverty of those in the different low income persistence categories – again for children and for the

Table 3.11: Income Poverty Persistence for Consistently Poor Children (at 70 per cent of Median Income), 1994-2001

Poverty profile	Children		All	
	1994	2001	1994	2001
	%	%	%	%
Persistent non-poor	0.0	0.0	0.0	0.0
Transient poor	6.5	3.2	8.0	1.3
Recurrent poor	17.1	7.4	15.3	10.9
Persistent poor	76.4	89.4	76.7	87.7
Total	100.0	100.0	100.0	100.0

Table 3.12: Mean Number of Years Consistently Poor by Poverty Profile for Children (at 70 per cent of Median Income), 1994-2001

Poverty profile in terms of income	Children	All
	Average number of years in consistent poverty	
Persistent non-poor	0.0	0.0
Transient poor	0.2	0.1
Recurrent poor	0.7	0.5
Persistent poor	2.8	1.9
Total	1.0	0.6

sample as a whole. We see that those who experienced persistent low income also had much more time in consistent poverty than others: on average they spent almost three years in consistent poverty, compared with less than one year for those in the recurrent income-poor category and hardly any time at all in consistent poverty for those in the transient

income-poor category. Once again the patterns are similar for children and for the sample as a whole, but with more experience of consistent poverty for children in persistently low-income households than for the corresponding persons in the sample as a whole.

3.7 Conclusions

This chapter has sought to capture Irish children's overall experience of poverty over the period of eight years covered by the LII panel survey. Half the children observed in the panel did not spend any time in a household below the 60 per cent of median income threshold during that period, only 4 per cent were below the threshold in all eight years, but one in four spent a substantial proportion of the time (at least three years) below it. Children experienced substantially more income poverty than working-age adults without children. About 19 per cent of children experienced only transitory income poverty, while 10 per cent experienced recurrent and 21 per cent experienced persistent income poverty.

Children in households where the reference person was employed at the outset were much less likely to experience any time below the 60 per cent threshold than those in households where he/she was unemployed or inactive at the outset; the number of other adults in the household at work was also a key factor distinguishing children experiencing substantial income poverty over the period and those experiencing little or no time below the income threshold. Subsequent experience of income poverty was also strongly predicted by welfare dependence at the outset of the period, even in what turned out to be a remarkably buoyant macroeconomic context.

Econometric models revealed that living in a household where the reference person had lower levels of education was associated with a very pronounced increase in the risk of persistent poverty, particularly for those with no second-level qualifications. Where the reference person is unemployed or inactive the risk of persistent and recurrent poverty was also higher; similarly the higher the number of persons employed in the household, the lower the probability of recurrent and persistent poverty. Where the reference person was reporting less than good health the likelihood of recurrent or persistent income poverty was also increased. Having three or more children substantially increased the risk of persistent income poverty, and the number of teenagers also had a significant effect in increasing the probability of recurrent or persistent relative income poverty.

Finally, the chapter analysed the experience of Irish children over the panel period in terms of consistent poverty. Over 70 per cent of children did not experience consistent poverty at any point over the period of the panel survey, while about 15 per cent spent three or more years in consistent poverty. Almost all of the children who were in consistent poverty in 1994 went on to experience recurrent or persistent low income over the life of the panel, and those who experienced persistent low income also had much more time in consistent poverty than others on average.

We move on in the next chapter to see what can be learned from an analysis of spells below the relative income thresholds, and in particular what this reveals about the factors associated with the duration of those spells of income poverty.

Chapter 4

A Descriptive Analysis of Income Poverty Durations

4.1 Introduction

In the last chapter the approach adopted was to count the number of years that a person had experienced poverty over a given observation period. We then examined the impact of a range of socio-demographic and socio-economic measures on the number of years experiencing poverty. This was a very useful exercise and revealed a very pronounced 'structure' to the experience of income poverty, with certain groups being far more likely than others to experience any poverty and indeed recurrent and persistent poverty. Though undeniably useful, this methodological approach has some important limitations.

In this chapter we adopt a different approach, moving to a 'spell' centred analysis of the period for which individuals were in income poverty. Rather than simply counting the number of years poor across an observation period, here we create a 'spell' or period during which the household was poor and examine the impact of different characteristics on the probability that the person will leave poverty. This chapter presents a descriptive analysis focused on spells in poverty, and this is followed in Chapter 5 by a more formal statistical analysis.

4.2 Studying Poverty Spells

A focus on total number of years in poverty over the life of the panel survey or on transitory versus persistent income poverty suffers from two limitations. First, attrition (where individuals and households drop out of a survey) across the years between 1994 and 2001 complicates any measure based on a simple count of the number of years during which an individual was poor across the observation window. Those who were present in the sample for longer have a higher probability of experiencing a larger number of years poor and this makes interpretation difficult.

The second limitation of counting years poor is that it cannot take account of the 'censoring' of poverty spells in data. Censoring comes in two forms – left and right. The first occurs when the spell of poverty is already underway the first time the individual is observed in the data and so it is not known when the spell began. This presents problems if the probability of leaving poverty is related to the duration of the spell, e.g. if the probability of exit declines over time. Right censoring occurs when a poverty spell is still on-going when the observation window ends, either because the individual is no longer responding to the survey or because the survey has finished. As with left-censoring, this situation means that the true length of the spell is not known.

Both the problems of attrition and censoring can be tackled if we move from a methodology based on individuals and their characteristics to one based on evaluating 'spells' of poverty and their characteristics. This solves attrition and censoring problems as the statistics used to describe spells are based on transition rates and these are calculated by dividing the number of events, say exits from poverty, by the number at

risk of an event. Attrition is dealt with as respondents remain in the data even if they left the sample before the end of the observation window and censoring is dealt with as censoring simply decreases the number at risk of a transition.

By focusing on spells we are also able to examine durations and thus analyse what increases or decreases the time spent below the income threshold. Although previous chapters have given a numerical summary of the number of years in income poverty and even introduced concepts of transience and recurrence, we did not examine uninterrupted spells of poverty. Yet poverty duration is important since, while a short spell of poverty may be ameliorated by drawing on savings or family and friends, a longer spell of poverty is likely to impact more seriously on living standards. Duration matters, and along with the recurrence of poverty is one of the major dimensions of analysis.

However, creating spells of poverty requires the adoption of some simplifying assumptions. The income information that we have is collected at a single point in time once a year. Therefore, if we see a person who is poor for two consecutive years we need to assume that his/her income did not increase beyond the poverty threshold between the first and second measure if we are to define this period as a spell of poverty. This is quite an assumption and it is likely that we will be missing many transitions to and from poverty. Nonetheless, if the processes leading into and from poverty are distributed evenly between the transitions we observe and those we do not, we will still gain an unbiased and useful picture of the processes concerned.

In this chapter we begin the analysis of spells by using descriptive techniques that allow us to examine prominent

patterns and groups of particular interest. The technique we use is called the product limit estimate (see glossary) or Kaplan Meier which calculates a transition rate, in this case from poverty, for each year of a poverty spell. This transition rate can be used to calculate the average duration of poverty spells both for the whole population of spells and for individual groups and can also be used to calculate the 'survivor function' which gives a numerical or graphical representation of the pattern of exits from poverty (see Section 4.4 for further information). We will use this facility in the analyses to come to examine the speed at which particular sub-groups leave poverty, or more accurately, the proportions remaining in poverty at different spell lengths. This will give us a glimpse into the processes which determine the length of time that different individuals remain poor.

However, unlike in the next chapter, here we have to make the simplifying assumption that the characteristics of the person do not change during the poverty spell, i.e. if the person is unemployed at the beginning of the spell he/she remains so for the duration. In Chapter 5 we will be adopting a multi-variate approach and modelling exit from poverty using hazard rate models and these can be estimated using time-varying covariates. More importantly we will also be able to examine the impact of a number of characteristics simultaneously, i.e. examine the net impact on one variable controlling for another.

As in previous chapters, here we use a range of individual and household characteristics when examining the poverty spell duration. The approach we took was to create a record for each poverty spell in the LII panel survey and attach this poverty spell to all individuals resident in the household

experiencing the spell. The data file used for analysis is then a rather complicated mix of poverty spells replicated over individuals to whom household and individual characteristics have been attached. To examine the nature of child poverty we attach whether the individual involved is a child (aged less than 18 years) or an adult (aged 18+). We also then attach a host of other characteristics such as the age, sex, and employment status of the household reference person as well as useful information such as the types of social welfare benefits that are received. Household characteristics are also attached such as the number of adults and children in the household, plus the number employed.

Individuals can have experienced more than one poverty spell (a maximum of three in fact) across the eight-year observation window from 1994 to 2001, but tests prior to analysis showed that the vast majority of these spells were extremely short (a single year) and right-censored. This leads to difficulties when estimating transition rates and so the decision was made to only use first poverty spells. This reduces the number of spells available for analysis from 3101 to 2573. The file was further reduced to control for left-censoring in the file. Although we can account for right-censoring in calculating the transition rate, this does not deal with left-censoring. Because of this we chose only to examine those spells which were not underway the first time the household was observed. This means that we lose a large number of poverty spells (1618 of the 2573 available, or 63 per cent). The actual number of cases available for analysis is rather higher, though, at 3533 as these poverty spells are replicated over individuals (i.e. each individual in a household will have experienced poverty).

4.3 Average Spell Durations

We begin the analysis by examining the distribution of durations among the poverty spells in the LII panel survey. Maintaining sample size is paramount in duration analyses – fewer cases are available at longer durations as spells are censored or finished. Given this, the decision was made to use the 70 per cent median income poverty line as this gave a higher number of spells for analysis. Tests showed that the patterns observed using this line were not significantly different from those observed using a 50 per cent or 60 per cent median income line.

Table 4.1 gives the proportion of spells of different durations and shows that almost 61 per cent of spells are of a single year's duration. It is important to remember that 56 per cent of these spells are right-censored and so the figures given in Table 4.1 actually underestimate the true length of many. This is especially true of the spells of three or more years, which Table 4.1 shows are predominantly right-censored. Putting this aside for a moment, if we define persistent poverty here as three or more contiguous years below the income poverty threshold this means that around 23 per cent of the sample of poverty spells (non-left censored) over the period from 1994 to 2001 were of three or more years duration. Note that no spell was of eight years (the observation window), as spells which were underway in 1994 were not used in the analysis.

If 61 per cent of poverty spells are only a single year in duration, what does this imply for the length of the average poverty spell in the data and, perhaps more importantly, how are spells of different lengths distributed over cases with different characteristics? Using what are called product limit estimate techniques we can control for right-censoring when

Table 4.1: Duration of Poverty Spells

Duration	Not censored	Censored	Row total	All	N
1	56.0	44.0	100	60.9	2150
2	58.3	41.7	100	16.2	573
3	40.7	59.3	100	8.3	295
4	14.4	85.6	100	5.7	201
5	7.9	92.1	100	3.9	139
6	18.8	81.2	100	2.4	85
7	0	100.0	100	2.5	90
				100%	3533

deriving an estimate of average duration, and Table 4.2 shows that this is then 1.93 years.

As we would expect given the results in Table 4.1, the median (the value of the case at the 50th percentile) duration of poverty is a single year. The next two rows of Table 4.2 show that there is a very pronounced difference in the average length of poverty spells between individuals living in households where the household reference person (HRP) is male rather than female. This reflects that less than half of the poverty spells in households with a female HRP are of a single year, compared to over 61 per cent in households with a male HRP.

When we turn to the difference in durations experienced by children compared to adults we see that children actually experience fewer years of poverty on average than adults. As we have already seen, this is because children tend to live in households with parents of working age who are employed and so less likely to be poor.

Table 4.2: Mean and Median Duration in 70 per cent Median Income Poverty by Different Characteristics (Product Limit Estimates)

Variable	Mean	Median	N
All	1.93	1	3533
HRP is a man	1.99	1	2481
HRP is a woman	2.30	2	609
Individual is a child	1.72	1	737
Individual is an adult	1.99	1	2796
HRP has no qualifications	2.35	2	1721
HRP has Intermediate Certificate	1.79	1	736
HRP has Leaving Certificate	1.57	1	475
HRP has Third Level	1.43	1	154
HRP is <25	1.38	1	32
HRP is 25-34	1.62	1	337
HRP is 35-44	1.80	1	619
HRP is 45-54	1.78	1	669
HRP is 55-64	2.17	1	726
HRP is 65+	2.63	2	707
HHType is a single person	1.53	1	47
HHType is a single elderly person	2.91	2	56
HHType is a single parent	1.44	1	27
HHType is an elderly couple, no children	2.66	2	402
HHType is a non-elderly couple, no children	1.98	1	563
HHType is a couple with <3 children	1.77	1	989
HHType is a couple with 3+ children	1.76	1	484

If we move on to the highest educational qualification of the HRP we would expect that those with higher levels would be poorer for a shorter period and this does indeed seem to be so. Whereas those spells from households where the HRP

has no qualifications have an average duration of 2.4 years, spells for those with an intermediate certificate are 23 per cent shorter at 1.8 years. For those with a leaving certificate this period falls to around 1.6 years and for those with third level education to under 1.5 years. This suggests that higher levels of education are not only associated with a lower risk of poverty but also a shorter duration if a person becomes poor.

The relationship between duration and age is similarly straightforward, with households with a younger HRP having shorter durations and a quite neat graduation in spell length as age increases. The durations for those aged 65 are particularly long at over 2.6 years.

Looking at the distribution of durations for different household types it is clear that households with elderly people are far more likely to have longer spells of poverty than other types of households. That for a single elderly person for instance is the longest of any group in the table at over 2.9 years. For this group 59 per cent of spells are two or more years in duration, and around 27 per cent are five or more years in duration, even controlling for right-censoring. Interestingly the duration for single-parent households is actually the lowest at 1.44 years, although the low number of cases available (27) makes this finding quite unreliable.

4.4 Survivor Curve Analysis

As well as allowing us to derive the average duration of poverty spells, the product limit technique can also be used to calculate the 'survivor function'. The text box gives the technical definition of the survivor curve, but it is essentially

a line plotting the proportion of individuals who remain poor at a given duration of poverty.

The 'Survivor Function'

The survivor function, usually represented using the letter 'G', is the probability that a spell's duration is at least t (i.e. any point in the total observation window) where t is less or equal to the total spell duration (T):

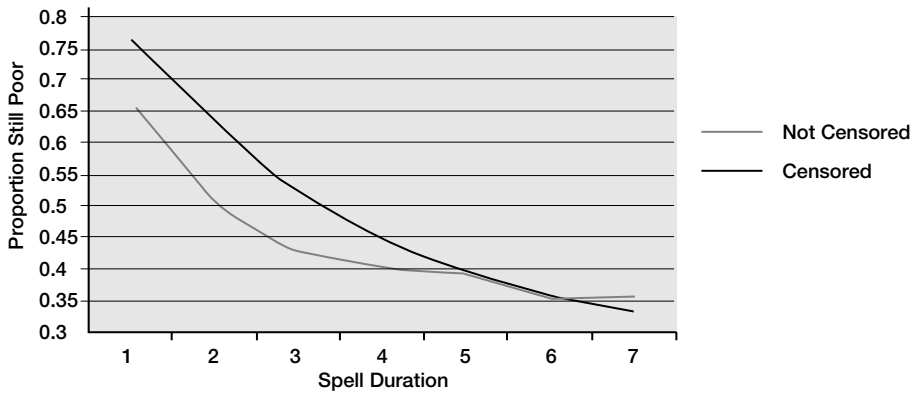
$$G(t)=1- F(t)=Pr(T>t)$$

Here F is the probability distribution of T, i.e. the probability that the spell's duration is less than or equal to t. Using this representation of the data we can calculate the probability of an individual remaining in poverty at any point during the observation window and relate this to his/her individual and household characteristics. We can plot these probabilities graphically to show the rate and extent to which those with different characteristics leave relative income poverty.

The interpretation of a survivor curve is relatively simple. The curve begins at 100 per cent on the left of the graph, as this represents the total who are poor at the beginning of their poverty spell. The curve then decreases as it moves to the right as the proportion of those poor decreases (i.e. as their poverty spells come to an end). The steeper the curve and the lower the line, the faster the rate of exit from poverty and the higher the proportion who have left.

Before we examine the impact of different characteristics it would first be useful to examine the impact of a spell being left-censored, as deleting these cases has a big impact on the analyses in this chapter. Figure 4.1 shows that those cases where the spell was already underway at the beginning of the observation period for the individual (which is not necessarily 1994) have a 'shallower' survivor curve than those that started after the first observation.

Figure 4.1: Survivor Curve from 70 per cent Median Income Poverty by Whether Left Censored

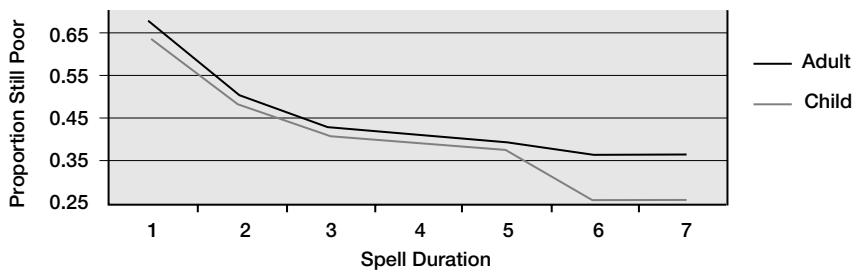


This shows that censored cases are less likely to leave poverty than uncensored cases, primarily because we have an unobserved period of poverty before the observed beginning of the spell. This decreases exit probability as poverty tends to be 'negative duration dependent', that is, the longer the person is poor, the less likely he/she is to leave poverty, although this dependency may not be monotonic (i.e. the impact of duration dependency may not increase

uniformly with duration) as can be seen by the way the two lines converge at around five years in Figure 4.1. In the next chapter we will be able to control for left censoring when estimating models, but Figure 4.1 confirms that these cases should be left aside in the descriptive analyses of this chapter so that we can compare like with like.

We begin first by examining whether there is a difference in exit dynamics between respondents who are children aged less than 18 years in the LII data and those who are adults.

Figure 4.2: Survivor Curve from 70 per cent Median Income Poverty by Whether Child or Adult (Censored at 7 Years Duration)



As households with children tend to include adults of working age it could be that a 'selection' effect would mean that these households would be less likely to be poor (since the employed are less likely to be poor), but this may be balanced out by the fact that families with higher numbers of children are more likely to be poor (see Nolan 2000). Figure 4.2 shows that there is in fact actually very little difference between the two types of respondents (confidence intervals for the two lines would overlap) which suggests that the

selection effects are outweighed by other processes such as the educational level of adult members of the household.[6]

Figure 4.3 shows survivor curves for households with different numbers of children and reveals that the increased risk of poverty for larger households seems to be due to the longer average duration of poverty for these households, although Figure 4.3 shows that the lines are essentially synonymous until around three years or so. This pattern could be interpreted in at least two ways. First it could be that the impact of higher numbers of children is in fact due to a selection effect, i.e. some other characteristic of larger households which just happens to be more common among households with higher numbers of children.

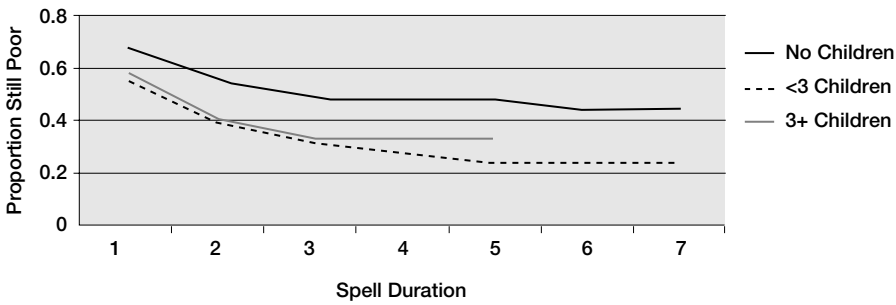
On the other hand it may be that having higher numbers of children also makes it more difficult to leave poverty, perhaps because child-care costs are high and this acts as a tax on employment (particularly among women), or because of an interaction with low education. Since wages are not linked to family circumstances whereas social welfare benefits are, the incomes which low-skilled employees can command in the labour market lead to high benefit replacement rates which can act as a disincentive to leave unemployment (see Layte and Callan 2001).

What is evident from Figure 4.3 is that households with no children are at a substantial disadvantage in terms of exit from poverty. This is largely due to the fact that elderly households are both less likely to have children resident and more likely to experience long-term relative income poverty

[6] Interpretation of the fall in the 'child' line at five years is complicated by the small numbers of cases involved (19).

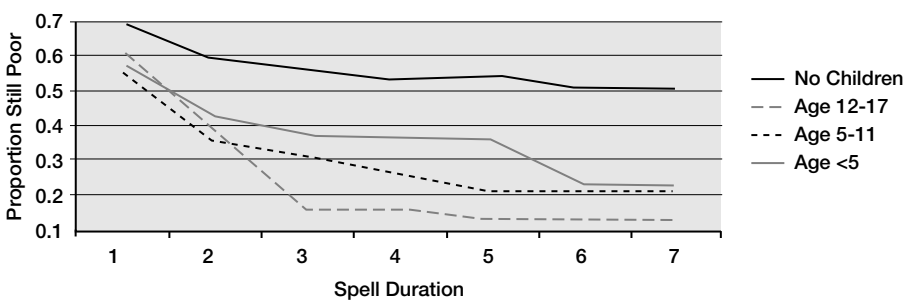
(although research shows that levels of consistent poverty are in fact relatively low).

Figure 4.3: Survivor Curve from 70 per cent Median Income Poverty by Number of Children in Household (Censored at 7 Years Duration)



In Figure 4.4 we examine the impact of the age of the child and this points to quite a difference in experience. As before households without children stay poor longer and are less likely to leave before the end of the observation period, but it is also clear that the age of the youngest child in the household is important.

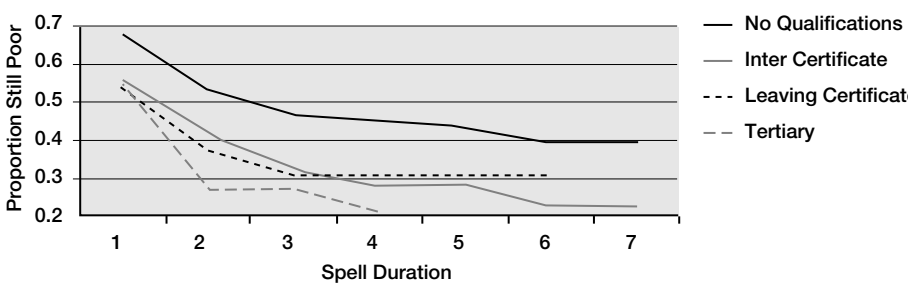
Figure 4.4: Survivor Curve from 70 per cent Median Income Poverty by Age of Children in Household (Censored at 7 Years Duration)



Those individuals living in households with a child under 5 years of age have the shallowest exit curve, suggesting slower exits and longer durations on average, although it should be said that the lines only become significantly different after three or more years. Those in households where the youngest child is between 5 and 11 years of age have the next longest durations, followed finally by the oldest age group of children, whose households have the quickest exits. This graduated relationship may be related to the fact that a pre-school child requires expensive childcare if the parent is to work (unless a relative or friend is forthcoming) and children in primary school require at least part-time care as these schools finish early in the day. This will act as a disincentive to take on employment if the skills and education of the person will not command the necessary income in the labour market.

On the other hand it could also be that there are selection effects in operation here with households. Households with older children are more likely to contain adults in the highest earning period of their lives. This means that they are not only more likely to work, but when they do, their wages and salaries tend to be higher also.

Figure 4.5: Survivor Curve from 70 per cent Median Income Poverty by Educational Level of the HRP (Censored at 7 Years Duration)



Having looked at the impact on relative income poverty of being a child and having children with different characteristics in the household, we now turn to an examination of how other characteristics impact on the duration of poverty. We look first at the impact of highest educational level. Education is a good predictor of overall poverty risk as it is associated with higher risks of unemployment and low income in employment, but for those who are experiencing poverty, does differential level of education impact on the duration of the poverty spell?

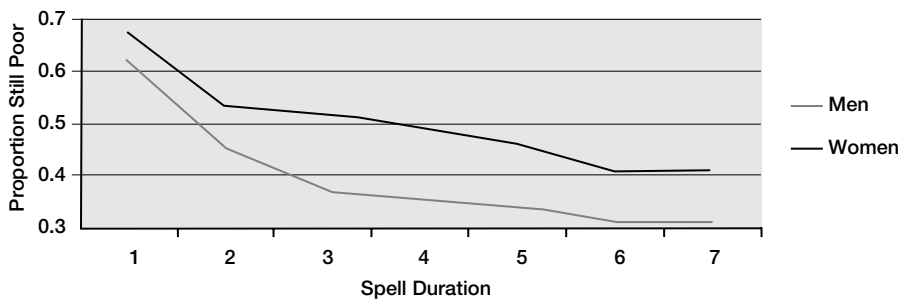
Figure 4.5 shows that education does seem to be related to poverty duration, with distinct differences in the slopes associated with different levels of qualification. Those households where the HRP has no qualifications present the shallowest line, which suggests longer and more persistent poverty. This is as would be expected, but may also reflect the large proportion of this group who are elderly. As we have already seen those aged over 65 are far more likely to be persistently poor. The difference between the other three groups reflects expectations but is variable depending on duration, although it is difficult to draw strong conclusions about those with third level qualifications as these are a small sample at any duration over one year.

In Figure 4.6 we can see the impact of the sex of the household reference person and this shows a large and significant difference between the durations of poverty experienced by men and women. Whereas around two-thirds of spells for households where the HRP is male would have finished by three years the same is true of less than half of spells in households with a female HRP. Cross-sectional poverty figures have consistently shown that Irish women experience higher risks of poverty than men, due largely to

the more limited ability of women to participate in the labour market because of childcare responsibility.

However, here it should also be noted that the differential between men and women is largely made up of the differential between elderly women and other groups. Elderly women are more likely to live on lower social welfare pensions such as widows' pensions or non-contributory old age pensions and these benefits have been lower than the income poverty line since around 1997. This has led to a surge in poverty risk among this group (and among the elderly generally) and a rapidly increasing level of persistent poverty.

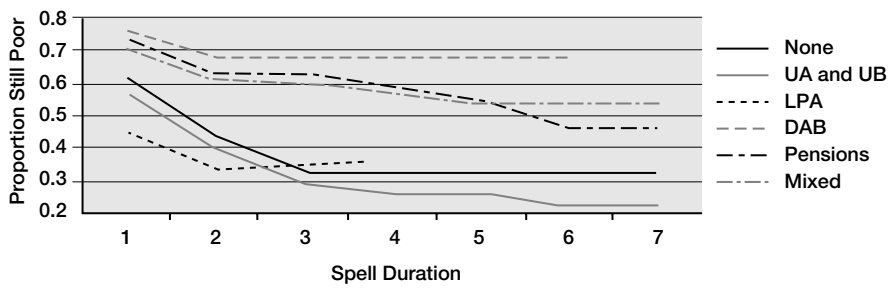
Figure 4.6: Survivor Curve from 70 per cent Median Income Poverty by the Sex of the HRP (Censored at 7 Years Duration)



We can get some appreciation of the impact of living on social welfare pensions in Figure 4.7, which shows survivor curves by receipt and type of social welfare payment. The first point to note is that those who are not in receipt of any social welfare benefit are actually quite advantaged, particularly after three or more years of poverty. As most benefits are means-tested in Ireland they will not be paid to

those with other sources of income and analyses show that nearly 75 per cent of the HRPs of the no benefits group are in employment and 40 per cent are in self-employment. It could be then that the greater likelihood of exit for this group is due to the greater likelihood of the household gaining employment throughout the period.

Figure 4.7: Survivor Curve from 70 per cent Median Income Poverty by Social Welfare Benefits in Household (Censored at 7 Years Duration)



Key: UA: Unemployment Allowance; UB: Unemployment Benefit; LPA: Lone Parent Allowance; DAB: Disability Benefit or Allowance; Pensions: any old age pension.

Looking at those in receipt of benefits it is clear that those in receipt of disability benefit plus those with pensions are the least likely to leave poverty and thus the most likely to have more persistent poverty spells. The line representing those with disability benefit is the most shallow and flattens out after the second year, with almost 70 per cent remaining in poverty thereafter. On the other hand those in receipt of unemployment benefit or assistance are far more likely to leave poverty, with a pattern close to those not in receipt of benefits until the third year of poverty.

One surprising result is that those households in receipt of lone parent allowance actually have shorter durations on average, even than those in receipt of unemployment benefit which tends to be closely related to recent employment experience. Those in receipt of unemployment benefit must have satisfied certain contribution conditions and to do this must have been in work (or received employment credits) and so tend to have had recent work experience. This means that they are far less likely to have long spells of unemployment and thus poverty, yet we see individuals who receive lone parent allowance leaving poverty more quickly.

4.5 Conclusions

In this chapter we have built on the work of Chapter 3 by moving to a spell-based mode of analysis that allows us to examine both the duration of poverty and how exits from poverty are distributed across poverty spell durations. This first analysis of spell durations was built upon a descriptive analysis and this meant certain restrictions in the analysis such as the exclusion of left-censored spells (which reduced the sample for analysis) and the use of only a small number of variables in each analysis (leading to restrictions on the extent to which certain factors could be controlled for). These restrictions will not apply in Chapter 5 when we begin the multivariate analysis of poverty durations, but in the meantime the analyses of this chapter still revealed a very strong structuring to poverty spells that influences the experience of child poverty.

We found that although the average duration of poverty spells among children is roughly the same as among adults, it is clear that households with children present are actually quite

advantaged when compared to households without children (in terms of duration of poverty). This is largely due to the fact that the latter are more likely to be elderly households, often elderly women, and this group have experienced increasing rates of relative income poverty and higher persistent poverty in the last eight years or so. Among households with children there are also important distinctions. Those households with three or more children are more likely to experience persistent poverty.

Two possible explanations were put forward to account for this. First it could be that the impact of higher numbers of children is in fact due to a selection effect, i.e. some other characteristic of larger households that just happens to be related to a higher poverty risk, but which is not directly associated with a larger number of children. We will know whether this is so in Chapter 5 when we will be able to control for the level of education of the household reference person when estimating the probability of exit.

On the other hand it may be that having higher numbers of children makes it more difficult to leave poverty because childcare costs are high and this acts as a tax on employment (particularly among women). This can interact with low education in the household. Since wages are not linked to family circumstances whereas social welfare benefits are, the income which low-skilled employees can command in the labour market leads to high benefit replacement rates which can act as a disincentive to leave unemployment.

The second interpretation is given some support by the fact that we also found a relationship between the age of the youngest child in the household and the rapidity of exit.

Households with a pre-school child had the slowest exits (of households with children), with households with primary school age exiting quicker, but not as quickly as households with children aged 12 or more. This suggests that childcare costs may directly limit the movement of members of households into employment and in so doing maintain these households, or at least contribute to these households remaining in poverty.

The policy implication of this finding is complex since for individuals (and given prevailing patterns of care in Irish households we are talking here more of women than men) with higher levels of education and greater skills this will not be an issue as the balance of wage and childcare costs is in favour of working. Among lower skilled individuals, on the other hand, childcare costs are likely to be so high that they make working uneconomic. If we wish to make it economic for low-skilled individuals to move into employment one policy response would be to subsidise childcare and thus the person's employment.

In doing this, however, it has to be recognised that subsidisation of childcare is simply paying someone from outside the household to look after a child who is currently being looked after by a parent without payment. For low-skilled individuals the payment to the childcare worker may actually be higher than the wage rate that the parent will receive in the labour market.

Chapter 5

Modelling Child Relative Income Poverty

5.1 Introduction

In this chapter we continue our analysis of relative income poverty durations by estimating multivariate models of the chance of leaving poverty for those who became poor between 1994 and 2001. The last chapter showed that poverty durations exhibit a pronounced structure, with particular individual and household characteristics influencing the length of poverty experienced. Looking at the poverty durations of children compared to adults it seemed that children had roughly the same risk of persistent poverty as adults, but households with children were actually less likely to experience long periods of poverty compared to households without children. This was due to the influence of age on poverty risk and illustrated the danger of drawing conclusions from bivariate analyses where we cannot control for confounding characteristics.

In this chapter we will use multivariate hazard rate models to control for particular individual and household characteristics whilst analysing the impact of others. This means that we will be able to examine the true impact of childhood on poverty duration whilst controlling for the age of the household reference person plus a number of other characteristics such

as their level of education and labour force status. We return to the manner in which the presence of children in a household influences poverty risk and duration, but before we do so we briefly examine the methodological approach that we adopt in this chapter.

5.2 Discrete Time Hazard Rate Analysis

In this chapter we will be using a statistical model to examine the processes which influence a person's transition out of poverty. By using a statistical model we will be able to control for factors whilst focusing on the impact of others. This means that we will be able to control for other socio-economic circumstances (such as educational level, employment status, number of adults in the household) and thus observe the direct and indirect effects of having children on the probability of leaving poverty.

Using a model also means that we can control for the fact that many spells of poverty in our data are 'left-censored', i.e. they began before our observation window started in 1994. This means that we will have a higher number of cases to use for analysis. The model we will be using is called the 'discrete-time' hazard rate model (see box) which is a commonly used methodology in the analysis of poverty (Stevens 1999; Jenkins and Rigg 2003). As in the last chapter, here we use spells of poverty defined as being below 70 per cent of median income poverty. As before, we use this line as it yields a higher number of poverty spells for analysis. Tests using 50 per cent and 60 per cent of median income showed, however, that the choice of poverty line does not change the pattern of results.

In the duration models we use exactly the same independent

The 'Discrete-Time' Hazard Rate Function

The discrete-time hazard rate model estimates the probability of making a transition out of poverty and its dependence on time. We thus measure the conditional probability that the transition will occur, given that it has not occurred already up to time *t*. This can be expressed as a discrete-time hazard rate H_{it}:

$$H_{it} = \Pr(T_i = t \mid T_i \geq t, X_{it})$$

Here, the hazard of individual *i* making the transition from poverty at time *t* is dependent upon them not having reached the end of the spell (T_i) and a set of covariates X_{it} which may or may not vary with time. This specification of the hazard requires an expression (among the many) for the hazard rate. The bivariate duration models of Chapter 4 showed that the transition rate declines as duration increases, but at a decreasing rate and tests show that a weibull distribution is the best specification for the hazard rate in these circumstances.

The discrete-time method also relies upon the reorganisation of data from a spell-centred unit of analysis to one based upon the spell year *t*. That is, each spell is broken down into its constituent years and the probability of each year being the final year of the spell is then estimated using a logit model. This means that a five-year poverty spell will yield five cases for analysis for each individual in a household that experienced the spell.

variables as used in previous chapters, i.e. the characteristics of the HRP (education, sex, age and labour force status) and household (number of people working, number of adults, number and age of children). As in Chapter 4 the individual 'case' is rather complex as it is the first spell of 70 per cent median income poverty of a household that has then been allocated to each member of that household. The case is thus an amalgam of the spell (since only those with poverty spells are included in the analysis) and the individual (to whom household information has been allocated).

As in Chapter 4 we only include the first poverty spell experienced and to simplify analysis we exclude spells experienced by households where the reference person is aged over 64. Although it would be interesting to analyse the poverty experience of older respondents in more depth, analyses showed that there was very little poverty mobility among this group and this means that our analyses would need to include more elaborate analyses between age and other covariates were older respondents included. To control for the impact of left-censoring on the risk of exit we also enter a variable representing whether the spell is left-censored.

5.3 The Influence of Childhood on the Risk and Duration of Poverty

As has already been discussed in Chapter 1, children can increase the risk of income poverty in a household in two ways – directly and indirectly. First they directly increase the level of resources required in the household. A household's food bill is likely to rise with the entry of a child into the household (and this need will increase as the child grows).

There are a large number of other costs, from clothes and toys, to more infrequent purchases such as buggies and children's furniture which all increase the overall level of resources required in the household and also influence the distribution of these costs across childhood.

Research (Costello 1999) suggests that the direct costs associated with a child are 'U-shaped' in that they are highest in the early years of life and during the teenage years, but lower in between. The higher costs in early life are mainly due to investment in childcare equipment and ongoing costs for items such as nappies, whereas in adolescence costs for food and clothing tend to dominate.

But children also indirectly influence the risk of poverty that the household faces through their impact on the labour force status of the parents and particularly the mother. In the first four years of life before the child is able to start school, the childcare of the parents will need to be replaced if both are to participate in the labour market and this can entail substantial costs unless a relative agrees to provide childcare. Therefore the utility of one of the parents working in terms of income and future prospects in these early years of life needs to be balanced against the costs of buying-in childcare. Childcare costs in Ireland are often almost as large as the wage which the individual will receive for his/her work, particularly if the person is low skilled or has more than one child needing care. This represents a severe economic disadvantage to taking up employment.

The impact of being a child on poverty risk therefore summarises the balance of the direct costs of children, influenced by the age and number of children, and the indirect costs which are influenced by both the age of the

child and the characteristics of the individuals in the household. In the first analysis in this chapter we examine the impact of being a child on the duration of relative income poverty and whether this can be explained (a) by the characteristics of the HRP and household or (b) by the impact of the number and age of children themselves.

We do this by first estimating a model which looks solely at the risk for children compared to adults. This will tell us whether children do indeed face a higher risk of persistent poverty. We then estimate a second model which introduces the characteristics of the HRP and the household and examine whether this 'explains' the effect of being a child. In the final model we estimate the impact of variables, measuring the age and number of children in the household.

In Model 1 (Table 5.1) we introduce whether the respondent is aged less than 18 plus model controls (the log of spell duration at *t*; whether the spell is left-censored and the year of *t*). Model 1 shows that there is a significant negative impact of being aged less than 18, i.e. those respondents who are aged less than 18 are less likely than those aged 18 or more to exit from poverty in each year. In Chapter 4 we found that there was no significant difference between adults and children in poverty risk and this result seems to contradict this, but tests show that this is due to the exclusion of households with a reference person aged over 64 in this chapter. As we saw in Chapter 4, respondents living on pension incomes have little income mobility and so once under the poverty line remain there. Here this population are excluded and so children are being compared to adults, some of whom do not have children and so are more likely to leave poverty.

Table 5.1: Discrete Time Hazard Rate Model of Exit from 70 per cent Median Income Poverty 1994-2001

	Model 1		Model 2		Model 3		Model 4	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Log of t	–1.03	***	–0.78	***	–0.77	***	–0.78	***
Left-censored	–0.06	n.s	0.01	n.s	0.04	n.s	0.00	n.s
1995	0.58	***	0.50	***	0.49	***	0.48	***
1996	0.88	***	0.77	***	0.73	***	0.74	***
1997	1.03	***	0.76	***	0.70	***	0.73	***
1998	0.91	***	0.57	***	0.51	***	0.55	***
1999	0.42	**	–0.01	n.s	0.00	n.s	0.02	n.s
2000-2001	–0.59	***	–0.96	***	–0.96	***	–0.92	***
Individual is a child	–0.10	*	–0.13	**				
HRP is female			0.16	*	0.16	*	0.19	**
HRP aged 25-34			–0.15	n.s	–0.08	n.s	–0.25	n.s
HRP aged 35-44			–0.07	n.s	–0.05	n.s	–0.22	n.s
HRP aged 45-54			0.01	n.s	–0.05	n.s	–0.13	n.s
HRP aged 55-64			–0.16	n.s	–0.27	n.s	–0.28	n.s
No qualifications			–1.19	***	–1.12	***	–1.13	***
Intermediate level			–0.87	***	–0.78	***	–0.79	***
Leaving level			–0.72	***	–0.67	***	–0.68	***
Unemployed			–0.31	***	–0.32	***	–0.32	***
Retired			–0.24	n.s	–0.28	*	–0.23	n.s
Inactive			–0.27	**	–0.33	***	–0.33	***
Number employed			0.42	***	0.41	***	0.41	***
HRP fair/poor health			0.02	n.s	0.00	n.s	0.01	n.s
Less than 3 children					–0.14	*		
3 or more children					–0.53	***		
Children aged 12-17							0.06	n.s
Children aged 5-11							–0.07	n.s
Children aged <5							–0.08	n.s
Constant	–0.95	***	–0.17	n.s	–0.02	n.s	–0.07	***
Log-likelihood	–7151.88		–6609.74		–7118.29		–7153.92	
N	14273		13808		14894		14894.00	

NOTE: The 'reference' category to which other coefficients in the table should be compared is omitted from the Table. This comprises individuals who are an adult, live in households whose HRP is male, aged less than 25, has third level qualifications, is employed, is in good or excellent health and has no children. We are also comparing to 1994.
Note: B=Coefficient for the variable; Sig=Level of Significance; n.s=Not Significant; *=P<0.05; **=P<0.01; ***=P<0.001.

Model 1 above shows that the probability of leaving poverty actually increased between 1994 and 1997, but thereafter decreased significantly. This suggests a greater degree of poverty persistence in the late 1990s, even when we have excluded those cases in 'elderly' households who are less likely to leave poverty because their incomes tend to remain stable (i.e. if you are poor and your income will not increase you will stay poor unless the distribution of income changes). Is the lower probability of exit from poverty among children a consequence of the type of households in which they live or is it due to the impact of the effect of children themselves on the direct and indirect risks of poverty?

We can begin to unwrap this issue in Model 2 (Table 5.1), which adds in the characteristics of the household reference person (HRP) plus other household characteristics into the model. This shows a number of interesting effects. First of all, controlling for these characteristics, having a female HRP actually increases the probability of exit from poverty. This seems to fly in the face of cross-sectional poverty research which shows that women are more likely to experience poverty, but it should be remembered that we are looking at the probability of exiting poverty and it may be that women who are poor have greater options in the labour market than men in the same position. Growth in female employment in the 1990s far outstripped that of men and research has shown (Layte and O'Connell 2001) that the pool of male unemployed grew increasingly disadvantaged through the 1990s as those with severe disadvantages were left unemployed.

Model 2 also shows that the age of the HRP does not seem to have a significant negative impact on leaving poverty, unlike education which appears to have a very significant

impact. Model 2 shows a graduated relationship between level of education and probability of exit in any one year, with those individuals in households where the HRP has less than tertiary qualifications less likely to leave poverty in any month. Being unemployed or inactive also has a significant negative effect as does the HRP being in less than good health. On the other hand, having a higher number employed in the household increases the probability of exit.

Returning to the main aim of Model 2, we can see that the decreased probability of exit from poverty among respondents aged less than 18 does not disappear or become insignificant once we have controlled for all of these characteristics. This suggests that we are not seeing a 'selection effect' here, i.e. the increased risk of persistent poverty among children seems to be the result of the direct or indirect costs of having a child in the household rather than the characteristics of the households in which they live (at least to the extent measured in the estimation), although these findings do not exclude interactions between the two processes.

We can examine the manner in which children impact on the risk of poverty by introducing a variable that represents the number of children in the household and one that represents the youngest age of the child in the household. The two types of variables are entered in Models 3 and 4. We enter the two types of variables in different models because they will be strongly correlated with one another since, by definition, if a household contains a child of any age, it also contains at least one child. Because of this, each variable will 'constrain' the other if added to a model simultaneously and we thus cannot enter both variables at the same time (without combining them into an 'interaction' variable anyway) or enter

either in the presence of the variable indicating whether the respondent is a child (since this would determine the value of these variables to a certain degree).

In Model 3 we enter the variable representing the number of children. We actually fit three 'dummy'[7] variables to represent the number of children in the household: more than zero but less than three and three or more (which are compared to having no children). We chose this formulation as previous work has shown that having three or more children is strongly associated with a higher probability of poverty. Fitting the variables for number of children shows clearly that having any children in the household and particularly higher numbers of children leads to a decrease in the probability of exiting poverty. This suggests that the direct impact of having children in the household is a significant factor.

What though of the indirect impact of children? Model 4 fits a variable representing the age of the youngest child. As in Model 3, the age of the youngest child is fitted as a series of 'dummy' variables where having a child under 5, 5 to 11 and 12 to 17 is compared to not having a child in the household. The results show that none of the age groups is a significant influence on leaving poverty. The lack of effect for the age of children strongly suggests that the 'total' influence which children have on exit from poverty (i.e. the fact that being a child leads to a slower exit from poverty) is a result of the direct costs of having children rather than the indirect costs (through the employment status of the adults in the household).

[7] A dummy variable is a dichotomous variable which takes the value 1 if a statement is true and 0 otherwise. Here, each of the three variables used is given the value 1 if it equals the number of children in the household.

5.4 Examining the Indirect Impact of Children

The last set of models showed that children impact directly on the probability of exit from relative income poverty rather than indirectly. We sought to identify the indirect effect through a variable representing the age of the youngest child in the household, but the models we employed did not seek to look directly at the relationship between the presence of children, the restriction on employment participation and poverty duration. If children do exert an indirect influence on poverty duration through the employment status of parents, and the mother in particular, we should see a negative relationship between those groups such as lone parents who face particular difficulties in working without the availability of subsidised childcare and the age of the child.

In estimating a model of this relationship we need to specify both the HRP characteristics used in the last set of models (to control for other factors that may influence poverty risk), the household type plus whether the household is claiming any social welfare benefits that may influence poverty risk. This we do in a series of models shown in Table 5.2.

Model 1 (Table 5.2) shows the basic relationship between age of children and risk, without controls for the HRP's status and household characteristics. This shows, unlike in the last section, that if we do not control for confounding characteristics there is indeed a relationship between the age of the youngest child and exit from poverty, but the relationship is actually positive suggesting that the presence of children speeds up exit. This is likely to be because children are likely to live in households with adults who are working and this is shown well by the introduction of the HRP's characteristics in Model 2. When these characteristics

are entered, the pattern then emerges as before, with the age of the child having a negative, but non-significant impact on the probability of exit.

The next step is to add the household type and social welfare receipt/type in Model 3 and this produces some interesting results. The age of the child remains insignificant, but we can see that being a single person, single parent or having three or more children delays exit from poverty, with the coefficient for being a single parent particularly large (the 'other' category in Table 5.2 comprises mixed households which tend to contain multiple adults who are not partners or are multi-generational, but some may also contain children).

We also find that compared to those without social welfare benefits, those in a household which is receiving unemployment assistance (UA) or disability benefit are less likely to exit poverty, whereas those in receipt of unemployment benefit (UB) or lone parent allowance are more likely to exit poverty (although it should be remembered that we are controlling already for whether the person lives in a single parent household).[8]

Finally we come to Model 4 and the evaluation of the indirect effect hypotheses. As outlined earlier we would hypothesise that single parent households would be severely disadvantaged in terms of poverty risk as employment needs to pay a wage which is high enough to pay childcare costs. However, as the age of the child increases we should see a decrease in the penalty attached to having children,

[8] Although we have excluded households where the HRP is older than 64, we still represent pension income here as others in the household may be older than 64 and claiming pensions.

Table 5.2: Discrete Time Hazard Rate Model of Exit from 70 per cent Median Income Poverty 1994-2001

	Model 1		Model 2		Model 3		Model 4	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Log of t	–1.06	***	–0.78	***	–0.75	***	–0.74	***
Left-censored	–0.04	n.s	0.00	n.s	0.06	n.s	0.07	n.s
1995	0.60	***	0.48	***	0.49	***	0.50	***
1996	0.89	***	0.74	***	0.74	***	0.74	***
1997	1.05	***	0.73	***	0.65	***	0.64	***
1998	0.94	***	0.55	***	0.49	***	0.49	***
1999	0.52	***	0.02	n.s	0.02	n.s	0.02	n.s
2000-2001	–0.52	***	–0.92	***	–0.98	***	–0.97	***
Children aged 12-17	0.41	***	0.06	n.s	–0.12	n.s	0.00	n.s
Children aged 5-11	0.18	**	–0.07	n.s	–0.12	n.s	0.34	**
Children aged <5	0.04	n.s	–0.08	n.s	–0.11	n.s	0.42	**
HRP is female			0.19	**	0.17	*	0.18	*
HRP aged 25-34			–0.25	n.s	–0.27	n.s	–0.20	n.s
HRP aged 35-44			–0.22	n.s	–0.23	n.s	–0.15	n.s
HRP aged 45-54			–0.13	n.s	–0.19	n.s	–0.12	n.s
HRP aged 55-64			–0.28	n.s	–0.37	*	–0.29	n.s
No qualifications			–1.13	***	–1.16	***	–1.15	***
Intermediate level			–0.79	***	–0.83	***	–0.84	***
Leaving level			–0.68	***	–0.72	***	–0.72	***
Unemployed			–0.32	***	–0.32	***	–0.32	***
Retired			–0.23	n.s	–0.42	**	–0.38	**
Inactive			–0.33	***	–0.36	***	–0.30	***
Number employed			0.41	***	0.38	***	0.40	***
HRP fair/poor health			0.01	n.s	0.04	n.s	0.03	n.s
Single person					–0.48	**	–0.40	**
Single parent					–0.76	***	–0.15	n.s
Couple <3 children					–0.06	n.s	–0.40	***
Couple 3+ children					–0.47	***	–0.90	***
Other (mixed household)					–0.37	***	–0.08	n.s
Unemployment ass.					–0.28	***	–0.28	***
Unemployment benefit					0.66	***	0.67	***

Table 5.2: Discrete Time Hazard Rate Model of Exit from 70 per cent Median Income Poverty 1994-2001 – Contd.

	Model 1		Model 2		Model 3		Model 4	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Lone parent allowance					0.80	***	0.88	***
Disability benefit					–1.05	***	–1.09	***
Widow's contrib. pens.					–0.13	n.s	–0.22	n.s
Widow's non-contrib. pens.					–0.61	n.s	–0.71	*
Old age contrib. pens.					–0.09	n.s	–0.10	n.s
Old age non-contrib. pens.					0.12	n.s	0.08	n.s
Mixed					0.34	***	0.35	***
Lone parent, child 5-11							–0.97	***
Lone parent, child <5							–1.34	***
Constant	–1.17	***	–0.07	n.s	0.27	n.s	0.08	n.s
Log-likelihood	–7706.47		–7153.92		–7019.21		–6987.18	
N	15391		14894		14894		14894	

NOTE: The 'reference' category to which other coefficients in the table should be compared is omitted from the Table. This comprises individuals who live in households with a couple and less than three children, whose HRP is male, aged less than 25, has third level qualifications, is employed, is in good or excellent health, does not receive social welfare benefits and has no children. We are also comparing to 1994.
Note: B=Coefficient for the variable; Sig=Level of Significance; n.s=Not Significant; *=P<0.05; **=P<0.01; ***=P<0.001.

with the biggest step being between those with pre-school children and all others. In Model 4 we fit 'interaction' terms between being a lone parent and having children of different ages.

Model 3 showed that being a single parent has a significant negative impact on the probability of leaving poverty, whereas the age of the youngest child in the household was insignificant. Model 4, on the other hand, shows that if we

enter an interaction term between these variables, being a single parent becomes insignificant and age of child becomes significant and, moreover, positive with a pronounced gradient suggesting that younger children increase the probability of exit.

However, to understand this somewhat contradictory finding we need to look at the result of the interaction between being a lone parent and having younger children that is displayed at the bottom of Model 4. This shows that the age of a lone parent's child influences the probability of exit from poverty. The younger the child, the slower the exit as shown by the increasingly negative influence of the age of the child when interacted with being a single parent. Being a lone parent and having a child aged 5 to 11 decreases the probability of exit by 54 per cent compared to single parents with a child aged 12 to 17 (the reference category).

The probability of a lone parent with a child under 5 leaving poverty is 66 per cent lower than a lone parent with a child aged 12 to 17 (the difference between lone parents with 5 to 11 year-old children and those with children under 5 is also significant with a probability of less than one in a thousand). These results suggest that although the indirect impact of children is not important for households with two adults, it is a much more serious impediment to leaving poverty for single parents.

5.5 Summary and Conclusions

In the previous chapter we moved to a spell-based approach to the analysis of poverty which allowed us to look at the impact of different characteristics on spell duration and the probability of exit from poverty. Although this analysis pointed

to a number of interesting patterns and hypotheses, the bivariate approach did not allow us to test these directly. In this chapter, however, we have been able to estimate multivariate hazard rate models which allow us to control for different characteristics whilst looking at variables of interest.

We specifically sought to evaluate whether the higher risk of persistent poverty outlined in previous chapters was the result of the direct and indirect impact of having children in the household or whether it was in fact due to the other characteristics of households who had children. By controlling for these other characteristics we showed that it is the impact of children themselves that increases persistent poverty. The models showed in particular that the more children a household has, the less the probability of exiting poverty, suggesting that children do have a direct impact on poverty risk by increasing the level of household need.

Initial analyses suggested that the indirect effect of having children in the household was not significant, but a second set of more focused models showed that indirect effects do play a role, but only for single parent households for whom childcare presents a real problem. Our results showed a distinct relationship between the probability of exit for single parents and the age of the child, with all children exerting a negative influence, but the magnitude of this influence decreasing as the child grows older.

Chapter 6

A Comparative Perspective on Child Income Poverty Dynamics in Ireland

6.1 Introduction

So far in this report we have concentrated on patterns of poverty among Irish children and how these compare to the adult population and vary across households of different characteristics. In this chapter we adopt a comparative perspective and make use of the European Community Household Panel Survey (ECHP) to compare patterns in Ireland to those in ten other European Union countries. As we have already seen, there are different approaches that can be taken to the analysis of an individual or household's experience of poverty.

The first approach focuses on the number of years spent by individuals below a poverty line over the life of a panel survey. This approach does not take account of censoring or attrition in the data (see Chapter 5), but does allow us to gain a clear descriptive picture of the distribution of poverty persistence. More crucially, it also allows us to examine the extent of poverty 'recurrence', i.e. the extent to which individuals experience a number of different spells poor. This was the approach taken in Chapter 3 of this report.

A second approach is to adopt a 'spell'-based methodology which provides an analysis of the duration of poverty spells and the factors which explain exit from poverty. Both have their pros and cons, but here we are interested in gaining a descriptive understanding of how the experience of poverty among children differs in Ireland compared to a number of other European Union countries. Given this we adopt the first, or 'years of poverty' approach, and as in Chapter 3 we construct a 'poverty profile' that describes the experience of both persistent and recurrent poverty at the individual level. After briefly reviewing some methodological issues in section 6.2, in section 6.3 we begin our analysis with an examination of the distribution of these poverty profiles for children across ten countries, using three different income poverty thresholds.

Unlike Chapter 3, here we do not control for attrition and simply use the total sample from each country who were in the ECHP sample for five or more years between 1994 and 2001. The possible error that this introduces is not an issue here as we are more interested in comparative analyses rather than the absolute amount of time spent poor and each country is being assessed on the same basis.

In section 6.4 we examine how the experience of persistent and recurrent poverty among children compares to that among different categories of adults in different countries and what this might tell us about poverty processes in these countries. In section 6.5 we turn to an analysis of the impact of the number and age of children in a household. As we saw in Chapter 5, higher numbers of children and children of a younger age lengthen the duration of poverty spells even when we control for a host of other socio-economic factors. This suggests that these factors exert a significant independent effect on the risk of persistent poverty. The

extent to which this impact varies across countries and its relationship to other socio-economic factors will be highly illuminating and so we examine this in section 6.6 of the chapter.

6.2 Measuring Poverty Persistence in a Comparative Context

As in Chapter 3, here we adopt the 'years of poverty' approach. The length of time that an individual spends in poverty is a crucial indicator of his/her experience since time spent below the poverty line is directly correlated with the level of deprivation that the person will experience. However, the length of any one spell is just one dimension of the longitudinal experience of poverty since short, but recurrent, spells of poverty may also have serious consequences.

To measure these different and important dimensions of the experience of poverty we construct the same poverty typology that was constructed for the analysis of Irish data in Chapter 3. This divides the sample into those who have not experienced any year in poverty over the eight-year observation window, those who have experienced a single 'transient' spell of poverty of no more than two years, those who have experienced two or more spells of poverty neither of which was of more than two years (recurrent poverty) and those who have experienced 'persistent' poverty in the shape of a spell of poverty of three or more years in duration.

To analyse this profile we construct a number of indicators, both of the individual concerned and the household in which the person lives. Our primary interest is in the impact of being a child and so we use an indicator that expresses whether the person was aged less than 18 years for the entire period

under observation. Those who became an adult during the period are defined as an adult for all analyses. Other predictors of poverty experience including the age, sex, employment status and health status of the household reference person plus the number employed in the household are measured at the beginning of the period under which the person was observed.

We only include those respondents who were present in the ECHP for five or more of the eight years that the survey was in existence. It is important to set a minimum number of years, otherwise poverty experience may be overly influenced by attrition in the survey. However, selection of those who were present for all eight waves would drastically reduce the sample available. Given this, the compromise of selecting those present for five or more years allows us to avoid many of the problems which attrition would present without overly reducing the numbers available for analysis.

Not all fifteen members of the European Union in 1994 joined the survey at that point and one member, Luxembourg, subsequently left the survey. This means that the sample available to us for analysis is restricted to eleven countries. Our analyses include Germany, Denmark, the Netherlands, Belgium, France, the UK, Ireland, Italy, Greece, Spain and Portugal.

Finally, it should also be emphasised that the data used in this chapter differ substantially from that used in previous chapters. As well as being for a larger number of countries, the ECHP data also use a very different income concept that will have a significant bearing on the results obtained. Previous analyses in this report have been based on income measures based on income weighted using an Irish

equivalence scale (1, .66 and .33) and based on current income (i.e. income information on the year of interview). In the ECHP, on the other hand, income in the last calendar year (i.e. data collected at interview on the previous year's income) is used and this is equivalised using the 'modified' OECD measure (1, .5, .3).

These differences mean that there may well be differences in the results obtained for Ireland in this chapter compared to those in previous chapters. This is unfortunate, but is more than counter-balanced by the value of deriving a truly comparative picture of how Ireland compares to other European Union countries.

6.3 Poverty Persistence Among European Children

In this section we apply the poverty profile detailed in the last section to data from eleven of the countries that made up the European Union between 1994 and 2001. In this section and in section 6.4 we examine the 60 per cent median income poverty line where the median was derived across individuals (weighting for the distribution of individuals within each year). We use the 60 per cent line to be consistent with Chapter 3 of this study, but from section 6.5 onwards switch to the 70 per cent median income poverty line when we come to model the poverty profile.

We switch poverty lines as the proportion experiencing persistent poverty is much lower in some countries than others and use of the 60 per cent income threshold would make estimation problematic. However, results using 50 per cent and 70 per cent of median income (shown in the Statistical Annex) show that the descriptive patterns found for the poverty profile using the 60 per cent median income line

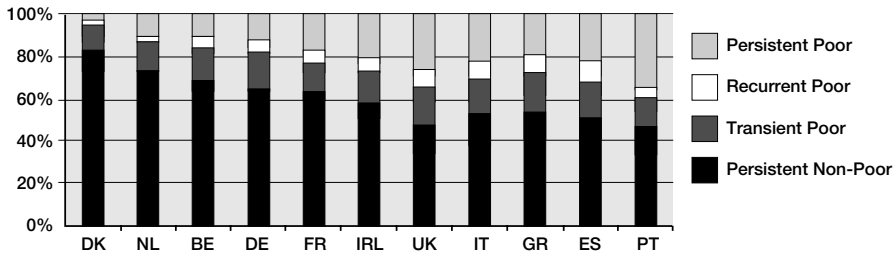
are not substantively different to those found using the 70 per cent line.

Our chief interest is in differences in persistent and recurrent poverty among children across countries and we can see this using the 60 per cent median income poverty line in Figure 6.1. This shows that across all countries, the majority of children avoid poverty altogether, although the proportion doing so varies substantially across counties, from almost 84 per cent in Denmark to 48 per cent in Portugal. As has been found previously in comparative poverty analysis (Layte and Whelan 2003) we also see a systematic grouping of countries in terms of persistent non-poverty. At one end of the scale are Denmark, the Netherlands, Belgium, Germany and France with high proportions of children completely avoiding income poverty. The Southern European countries group together at the other end of the scale with the UK whilst Ireland sits somewhere in between the two extremes.

This pattern strongly suggests that differences in social welfare and labour market structure play a role in the patterning of poverty experience, a hypothesis argued elsewhere (Fouarge and Layte 2005; Layte and Whelan 2003; Layte et al. 2000). This pattern is replicated to a certain extent when we look at persistent poverty, although this time the UK fares slightly better, with Portugal appearing to have a very high rate of poverty persistence among children. Similarly for transient and recurrent poverty we see a distinct north/south cleavage, with Ireland taking up an intermediate position.

As shown in the Statistical Annex, changing to a more generous income poverty line (i.e. moving from 50 per cent to 70 per cent of median income) tends to lead to higher levels of poverty persistence across all countries, but is most

Figure 6.1: Poverty Profile for 60 per cent Median Income Poverty for Children Aged <18 By Country



DK, Denmark; NL, Netherlands; BE, Belgium; DE, Germany; FR, France; IRL, Ireland; UK, United Kingdom; IT, Italy; GR, Greece; ES, Spain; PT, Portugal

pronounced for the Southern European countries, Ireland and the UK. Ireland also tends to move closer to the Southern European countries if we use a more generous threshold.

These results have at least three implications. First, poverty persistence and recurrence are systematically structured in a manner that is consistent with a hypothesis based on welfare state differences. Second, Ireland's levels of child poverty persistence and recurrence are moderate in the context of the countries presented here. Third, Ireland's relative position worsens the more generous the poverty line used.

6.4 The Pattern of Persistent Child Poverty Relative to Other Population Groups

Section 6.3 showed levels of poverty persistence and recurrence among children across a number of countries, but it is useful to put the experience of children in context by comparing their experiences to those of adults. Adults also

vary considerably so it is useful to differentiate between adults who live with and without children since the presence of children, as we have already seen, can substantially increase the risk of poverty. It is also useful to differentiate those over the age of 65 who may have substantially different living conditions because of the impact of retirement and reliance on pension income. As with our measure of children, here we define any person who became aged 65 or more during the panel observation period as being an older person for the whole period.

Unfortunately, presenting descriptive statistics on the proportion of four groups in eleven countries experiencing four types of poverty leads to a rather indigestible number of figures. Thus here we choose to concentrate solely on poverty persistence. To further limit the number of comparisons we also show results in the form of odds ratios which express the risk that children face of persistent poverty relative to our three other population groups. Where the odds ratio is less than one, children face a lower risk of poverty persistence. On the other hand, where the ratio is greater than one, their risk is higher. Table 6.1 gives the odds ratios using the 60 per cent income poverty line.

The 'Odds Ratio'

The odds ratio gives the risk that one group faces of experiencing poverty relative to the risk faced by another group. This is computed by dividing the proportion experiencing poverty in one group by the proportion experiencing poverty in the other. In Table 6.1 the risk faced by children relative to other groups is higher if the odds ratio is greater than one and lower if less than one.

Table 6.1 shows, unsurprisingly, that the risk of persistent poverty for children is very similar to that for adults with children (children do not live by themselves and their income is that of the household) with the odds ratio around 1 for most countries (seven of the eleven are between 0.8 and 1.2), apart from Germany, the UK, Ireland and Portugal.

Table 6.1: Odds Ratio of Risk of Persistent Poverty (60 per cent of Median Income) for Children Relative to Other Income Groups

	Adults with children	Adults without children	Adults 65+
Denmark	0.8	0.3	0.1
Netherlands	1.1	1.9	5.0
Belgium	1.0	1.0	0.4
Germany	1.4	1.6	1.2
France	1.2	1.6	0.9
Ireland	**1.4**	**2.3**	**0.8**
UK	1.8	4.6	1.4
Italy	0.9	1.7	1.6
Greece	0.9	0.9	0.3
Spain	1.1	2.3	1.6
Portugal	1.4	1.8	0.6

More interestingly we see that in eight countries children face a higher risk of persistent poverty compared to adults without children, Ireland having the second highest odds ratio with Spain behind the UK. Only in Denmark and Greece is the risk for children lower than for adults without children. When we

turn to the risk for children compared to adults over the age of 64 we see a more mixed picture, with children in six countries having a lower risk and the remainder having a higher risk. The ratio is lowest in Denmark, with children facing just one-tenth of the risk of older Danish people. In the Netherlands on the other hand children face over five times the risk. The risk is lower for children in Ireland, but only moderately so.

Analyses using different income thresholds (presented in the Statistical Annex) show that relativities between the groups within countries remain fairly unchanged when using the 50 per cent or 70 per cent poverty thresholds, although the inequality between children and older Irish people is worse using the 50 per cent median income poverty line than when using the 60 per cent and 70 per cent. The risk faced by children compared to adults without children in Ireland also improves as we use a more generous poverty line and this tends to improve Ireland's ranking between countries using this measure.

In summary we find that children tend to have a higher risk of persistent income poverty than adults of working age who do not live with children and that this relative risk is higher in Ireland than in most other countries except the UK, although this comparative position improves when using the most generous income poverty line. The position of children relative to older Europeans is more diverse, with children in a more favourable position in around half, including Ireland. If we adopt the 70 per cent income poverty line, the difference in risk between children and those aged over 64 tends to become smaller across all counties except Germany where the position of older people improves.

6.5 Modelling Child Poverty in a Comparative Perspective

The analyses so far in this chapter have shown that although Ireland has comparatively high cross-sectional rates of relative income poverty among children, its rates of persistent and recurrent poverty are average in the context of the old EU fifteen countries. More generous income poverty lines tend to group Ireland closer and closer to the Southern European countries with higher rates of persistence and recurrence, but even using 70 per cent of median income, Ireland remains at the lower end of this group. We have also seen that children tend to be relatively more likely to experience persistent income poverty relative to working age adults in Ireland compared to other countries.

On the other hand, the position of older Irish people is worse than that of their peers in other European countries, with the risk of persistent poverty for children being significantly lower for Irish children compared to adults over age 64. These results suggest that child poverty and persistent child poverty is a more substantial issue in Ireland relative to other Northern European countries aside from the UK.

So far, however, we have not investigated the extent to which child income poverty persistence is related to other socio-economic predictors. In the capitalist economies of the European Union poverty is strongly related to the ability of individuals and households to participate in the labour market or be self-employed. If they cannot participate, say through illness, or do not have the human capital to compete perhaps because of lower levels of education or skills, this is likely to lead to worsening living standards in the medium to long-term in the absence of an intervention from outside the household from family, friends or social welfare system.

We should find then that the risk of more and longer periods of income poverty is strongly related to the labour force status of the members of the household (income is assessed on a household basis), their education and health. As the distribution of these variables differs substantially between countries, we will need to control for these variables before we can interpret the differential impact of being a child between countries.

We examine this issue in this section by modelling the probability of experiencing more and longer periods of income poverty (using the income poverty profile). By entering variables representing whether the individual is a child and then controlling for a range of factors including the socio-economic predictors just discussed, we will be able to measure the extent of change in the risk which a child faces of persistent and recurrent income poverty. If, when we control for these factors, we see a significant decrease in the risk faced by children it suggests that the processes explaining child poverty work through these factors. This could imply that child poverty is closely related to these labour market disadvantages and that decreasing the proportion of the population with these disadvantages, or intervening to limit their impact through the social welfare system, would impact substantially on child poverty.

Child income poverty may also vary significantly across EU countries in relation to both the number and age of children in the household. For example, rates of poverty among larger families could vary significantly because of differences in the treatment of larger families across countries. Many countries in Northern Europe have a form of child benefit and a dependant's allowance for children,

but some countries such as France have a particularly 'pro-natalist' approach and reward larger families with significantly higher levels of resources (Gauthier 1996). As already argued in Chapter 5, the availability and affordability of childcare services may also influence the ability of parents to work and in so doing have an indirect bearing on the risk of income poverty.

To examine these issues we enter two additional variables into the models of poverty persistence and recurrence that we estimate. As well as examining the impact of the person being a child we also estimate variables that represent the number of children in the household (none, less than three, three or more) and the age of the youngest child in the household (less than five, five to eleven, twelve to seventeen, eighteen plus). These three variables cannot be estimated simultaneously since they are so closely correlated, so we estimate three different models to test the impact of each measure. To examine the relationship of each measure to other socio-economic predictors we also estimate models with and without these other factors. Finally, for each measure of the presence of children we also seek to find the country specific effect by 'interacting' the variable with the country identifier.

To model the risk of persistent and recurrent poverty we use an 'ordered logit' model (see glossary and text box in section 3.5) to estimate the impact of different factors on the probability of being at a higher level in the poverty profile which we have already used in this chapter. As the name of the model suggests, this type of methodology assumes that the four categories of the poverty profile have a certain order and that the 'intervals' between each level are equal (that is, the 'slopes' expressed by the predictors are equal across the

levels of the profile). A coefficient greater than one thus indicates that the factor in question increases the probability of experiencing recurrent and persistent poverty and *vice versa*.

Rather than show models with and without socio-economic predictors for each variable, Table 6.4 shows the results for each variable with socio-economic predictors and that without predictors only for the model, including the variable representing whether the individual is a child without predictors. We also do not show the models including country interactions for the measures of number and age of children since the interactions would require another table in their own right. Table 6.4 is thus illustrative of the basic results and a more thorough examination of the three variables is offered shortly. Previous analyses in this chapter have shown that the results using different equivalence scales do not differ substantially. Thus here we concentrate solely on measures derived using the 70 per cent median income poverty line since this gives us higher numbers of cases in persistent poverty, making estimates more stable and results more robust.

6.5.1 The Overall Risk of Child Persistent and Recurrent Poverty

Model 1 in Table 6.2 shows that the 'main term' for being a child at the very top of Model 1 does not have a significant impact on poverty risk without controlling for other factors. However, this is in the presence of country specific effects, shown at the bottom of Model 1, a number of which are significant and all of which are positive, suggesting that being a child leads to a higher risk of experiencing longer and more

frequent spells of poverty compared to being a child in our reference country, Denmark.[9] For example, the coefficient for the Netherlands suggests that the odds of recurrent or persistent poverty there is 1.45 times greater than that in Denmark.

Given that these coefficients are a re-expression of the levels that we saw in Figure 6.1 it seems odd that the levels of risk for being a child do not display the same ordering. For example, the risk for being a child in the Netherlands is lower than being a child in Spain. However, it should be remembered that these coefficients are 'interactions' and we need to multiply them by the term for the country in question (plus the main term for being a child). The results of doing this are shown in Table 6.2, line 2. Here we can see the pattern found earlier in the chapter, with Denmark, the Netherlands, Belgium, Germany and France having the lower risks, Ireland having a moderate risk and the other countries, including the UK, having a higher level of risk (all compared to Denmark).

Our main interest is the impact that controlling for socio-economic characteristics has on the risk of persistent and recurrent poverty for children, but before we do this, it is first interesting to examine the results for the socio-economic characteristics themselves.

The results do not vary significantly across Models 2 to 4 in terms of the direction of their effect (although the size of the effect does change). Thus we only discuss these results in

[9] We use Denmark as the reference as this as the lowest rate of child poverty and so can be seen as a good comparator for all other countries

Table 6.2: Ordered Logit Model Predicting a Poverty Profile Based on 70 per cent of Median Income 1994-2001

	Model 1		Model 2		Model 3		Model 4	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Individual is a child	0.92	n.s	0.95	n.s				
Netherlands	1.17	***	0.97	n.s	1.06	n.s	1.10	*
Belgium	1.41	***	1.49	***	1.51	***	1.56	***
France	1.78	***	1.53	***	1.56	***	1.63	***
Ireland	1.75	***	1.19	**	0.89	**	1.10	*
Italy	2.64	***	1.84	***	1.99	***	1.89	***
Greece	2.81	***	2.34	***	2.43	***	2.37	***
Spain	2.41	***	1.45	***	1.53	***	1.48	***
Portugal	2.86	***	1.60	***	1.64	***	1.62	***
Germany	1.37	***	1.32	***	1.41	***	1.41	***
UK	1.56	***	1.09	n.s	1.22	***	1.25	***
HRP is female			0.87	***	0.96	*	0.94	***
HRP aged 25-34			0.61	***	0.46	***	0.47	***
HRP aged 35-44			0.67	***	0.39	***	0.46	***
HRP aged 45-54			0.59	***	0.46	***	0.51	***
HRP aged 55-64			0.56	***	0.59	***	0.64	***
HRP has < tertiary education			2.62	***	2.70	***	2.64	***
HRP <upper secondary education			6.72	***	6.75	***	6.79	***
Unemployed			4.23	***	4.15	***	4.24	***
Retired			0.72	***	0.76	***	0.75	***
Inactive			2.41	***	2.29	***	2.33	***
Number employed			0.69	***	0.68	***	0.67	***
HRP fair/poor health			1.36	***	1.37	***	1.38	***
Less than 3 children					1.87	***		
3 or more children					5.15	***		
Children aged 12-17							1.83	***
Children aged 5-11							2.49	***
Children aged <5							2.41	***

Table 6.2: Ordered Logit Model Predicting A Poverty Profile Based on 70 per cent of Median Income 1994-2001 – contd.

	Model 1		Model 2		Model 3		Model 4	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Netherlands*child	1.45	***	1.66	***				
Belgium*child	1.20	n.s	1.35	**				
France*child	1.34	**	1.49	***				
Ireland*child	1.59	***	1.37	**				
Italy*child	1.28	**	1.30	**				
Greece*child	1.06	n.s	1.14	n.s				
Spain*child	1.41	***	1.51	***				
Portugal*child	1.54	***	1.50	***				
Germany*child	1.66	***	1.58	***				
UK*child	2.38	***	1.97	***				
Cut-point 1	0.85		0.95		1.19		1.25	
Cut-point 2	1.54		1.77		2.04		2.09	
Cut-point 3	1.91		2.21		2.50		2.53	
Log-likelihood	108754		105631		105631		105631	
N	–123556		–108952		–106495		–107799	

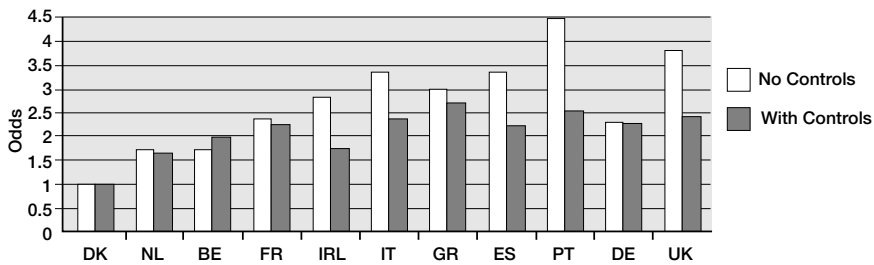
NOTE: The 'reference' category to which other coefficients in the table should be compared is omitted from the Table. This comprises individuals who live in Denmark, whose HRP is male, aged less than 25, has tertiary education, is employed, is in good or excellent health and has no children. More information on how to interpret a statistical model Table is given in Chapter 3.
Note: B=Coefficient for the variable; Sig=Level of Significance; HRP=Household Reference Person; n.s=Not Significant; *=P<0.05; **=P<0.01; ***=P<0.001.

terms of Model 2. Here we find that being female leads to a reduction in the risk of longer and more frequent poverty on average across the eleven countries, as does being in an older age group (those households where the household reference person is aged over 64 are not included in these

analyses to simplify interpretation). As we would expect, living in a household where the reference person has lower levels of education is related to a significant increase in the risks of poverty, particularly for those with less than upper secondary education. Similarly, those who are unemployed or inactive have significantly higher risks of persistent and recurrent poverty compared to individuals who are in households where the household reference person is employed, as do members of households where the reference person has less than good health. Finally, we see from Table 6.2, Models 2 to 4, that as the number of people employed in the household increases the risk of transient, recurrent and persistent poverty falls.

What impact does controlling for these socio-economic characteristics have on the risk faced by children? Model 2 in Table 6.2 shows that it tends to decrease the main country effect (making the UK and Dutch coefficients insignificant for instance), but has a mixed impact on the country-specific term for being a child (at the bottom of Model 2). For five countries the country coefficients for being a child increase, some substantially, whereas for others such as Ireland, Germany and the UK we see decreases. These decreases are particularly significant in the cases of Ireland and the UK.

Figure 6.2: Odds of Poverty for a Child Relative to an Adult



DK, Denmark; NL, Netherlands; BE, Belgium; FR, France; IRL, Ireland; IT, Italy; GR, Greece; ES, Spain; PT, Portugal; DE, Germany; UK, United Kingdom

We can see the change in Ireland's relative position more clearly if we take the results from Table 6.2, Models 1 and 2, and turn them into a chart of the odds of a child experiencing greater levels of poverty relative to an adult, with and without controls for socio-economic characteristics. Doing this in Figure 6.2 reveals some dramatic changes across countries but particularly for Ireland. Although Denmark and the Netherlands still have the lowest risks of child poverty across the countries once we control for socio-economic factors, Ireland moves from having the sixth lowest level of risk to having the third lowest behind the Netherlands.

This suggests that the distribution of socio-economic factors that we have examined is very different in Ireland compared to the other Northern European states (aside from the UK), and that controlling for the distribution of these variables brings the risk of poverty faced by Irish children closer to that of Danish or Dutch children, the best performing countries.

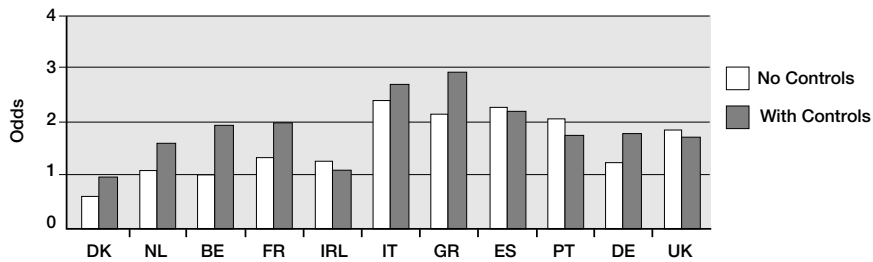
6.5.2 The Impact of Number of Children

Model 3 in Table 6.2 shows the results for the overall model of persistence and recurrence using the measure of number of children and controlling for socio-economic covariates. This shows that across countries the average effect of more children is to increase the risk of recurrent and persistent poverty, with three or more children having a particularly large impact on risk. Whereas having two or fewer children almost doubles the risk compared to having no children, having three or more increases the odds by over 500 per cent when we control for socio-economic characteristics.

Results from Table 6.2 can be used to compute 'country effects' that illustrate how the impact of the presence and

age of children varies across countries. These are presented in full in the Statistical Annex, but Figures 6.3 and 6.4 show the results with and without controls for socio-economic characteristics. Figure 6.3 shows that having less than three children (but more than none) actually reduces the risk of poverty in Denmark and Belgium compared to having no children. In every other country, the risk of experiencing persistent poverty is higher for households with three or more children, but this risk is particularly high in the Southern European countries. As we found before, results show Ireland lies somewhere between the Northern and Southern European averages.

Figure 6.3: Odds of Poverty for Households with 1 or 2 Children Relative to Households with No Children



DK, Denmark; NL, Netherlands; BE, Belgium; FR, France; IRL, Ireland; IT, Italy; GR, Greece; ES, Spain; PT, Portugal; DE, Germany; UK, United Kingdom

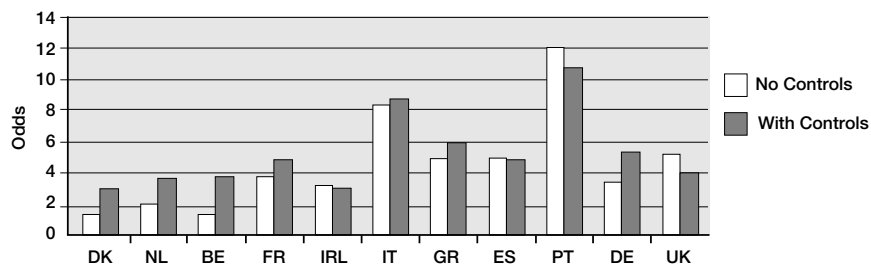
Introducing controls for socio-economic characteristics in Figure 6.3 has some very interesting results (taken from lines 9 and 10 of Table A6.3 in the Statistical Annex). As seen in Figure 6.2 for children overall, controlling for socio-economic characteristics changes the country pattern, with the odds in Northern European nations aside from the UK and Ireland increasing and those in Spain, Portugal, the UK and Ireland decreasing. This leads to an improvement in the position of

these countries if we were to rank them, although the low risk of Danish children means that even a substantial increase in risk there still leaves Danish children least likely to be poor.

We see a similar pattern when we look at the impact of having three or more children relative to having none in Figure 6.4. Unlike Figure 6.3, having three or more children is associated with a higher risk of poverty in all countries including Denmark, but the risk is particularly high in the Southern European countries. However, as in Figure 6.3 we see that if we control for socio-economic circumstances in Figure 6.4 the odds of poverty for households with three or more children relative to those with none increase strongly for the Northern European countries other than the UK and Ireland and decreases in the UK, Portugal, Spain and Ireland.

These results suggest that the socio-economic factors are differentially distributed across different countries and groups of countries. When we constrain Northern European states (outside Ireland and the UK) to have the average distribution of these characteristics for the eleven countries this increases the risk faced by having children considerably, whereas the opposite is true for the other countries including Ireland.

Figure 6.4: Odds of Poverty for Households with 3 or More Children Relative to Households with No Children

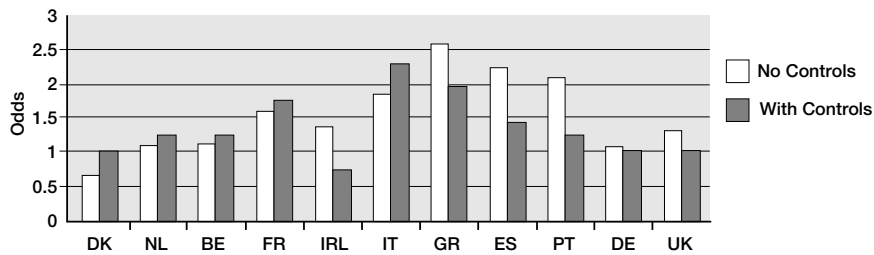


DK, Denmark; NL, Netherlands; BE, Belgium; FR, France; IRL, Ireland; IT, Italy; GR, Greece; ES, Spain; PT, Portugal; DE, Germany; UK, United Kingdom

6.5.3 The Impact of the Age of Children

Focusing on the age of the children, Figure 6.5 shows the odds of a household with children aged 12 to 17 relative to households with no children, with and without controls for socio-economic characteristics. As in previous figures we see that the overall odds are lowest in Denmark where the odds are lower or equal to one. We also see again that once we control for socio-economic characteristics the odds of experiencing more recurrent and persistent poverty increase in Denmark, the Netherlands, Belgium, France and Italy, whereas the odds decrease in all other countries. The decrease is particularly pronounced in Portugal, Spain and Greece and Ireland.

Figure 6.5: Odds of Poverty for Households with Children Aged 12–17 Relative to Households with No Children

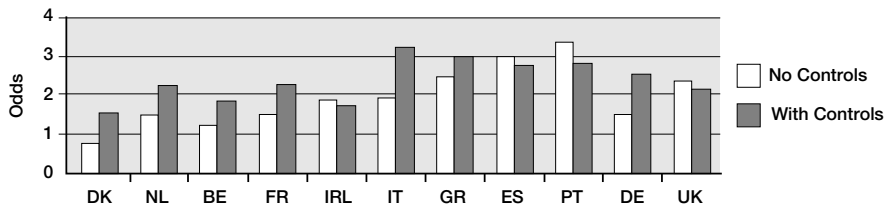


DK, Denmark; NL, Netherlands; BE, Belgium; FR, France; IRL, Ireland; IT, Italy; GR, Greece; ES, Spain; PT, Portugal; DE, Germany; UK, United Kingdom

Figure 6.6 examines the pattern of odds for children aged 5 to 11 relative to households with no children and shows that having children aged 5 to 11 carries the highest risk, although it is difficult to see this across charts (see tables in the Statistical Annex). This pattern suggests that the younger the age of the child the greater the risk of poverty with or without controls, although the difference between children aged less

than 5 and those aged 5 to 11 is not significant statistically. It is hard to say specifically why this age difference occurs, but it may be related to the greater autonomy of children in the teenage years when less parental supervision is required. As before the extent of this risk varies systematically across countries, with higher risks in Southern European countries and lower risks in Northern European. As before, there is no excess risk for this group in Denmark.

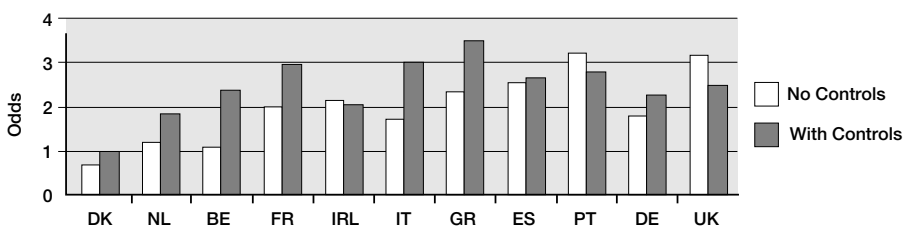
Figure 6.6: Odds of Poverty for Households with Children Aged 5–11 Relative to Households with No Children



DK, Denmark; NL, Netherlands; BE, Belgium; FR, France; IRL, Ireland; IT, Italy; GR, Greece; ES, Spain; PT, Portugal; DE, Germany; UK, United Kingdom

When we control for socio-economic factors we see a similar pattern to before, with the odds increasing in the Northern countries plus Italy, whereas we see a decrease in the Southern European countries plus Ireland and the UK.

Figure 6.7: Odds of Poverty for Households with Children Aged Under 5 Relative to Households with No Children



DK, Denmark; NL, Netherlands; BE, Belgium; FR, France; IRL, Ireland; IT, Italy; GR, Greece; ES, Spain; PT, Portugal; DE, Germany; UK, United Kingdom

Finally, in Figure 6.7 we see the pattern of odds for households with children under 5 years relative to those without children and see patterns similar to, and in part, more pronounced than in previous figures. These results suggest first that the penalty associated with having children, and young children in particular, is highest in countries outside of Northern Europe and most pronounced in Southern European countries. Second, the results also suggest that the distribution of socio-economic characteristics in countries outside of Northern Europe is a major factor in the higher levels of child poverty in these countries and that once we control for these characteristics the variance between the countries falls significantly.

6.6 Summary and Conclusions

This chapter has extended the analyses of previous chapters in this report by placing Ireland in a comparative context. This allows us to benchmark levels of persistent and recurrent child poverty in Ireland against those in ten other European states. Whereas Chapter 2 of this report showed that Ireland has comparatively high rates of cross-sectional child poverty in a European context, the results here show that Ireland sits somewhere between the levels of Northern and Southern Europe in terms of persistent income poverty.

This change in comparative position suggests that although Irish children are more likely to experience a period of poverty than children in other EU countries, this poverty is less likely to be persistent or recurrent than in countries in Southern Europe such as Greece, Spain, Portugal and Italy. What was also very startling from our results was the poor outcomes for the UK where levels of persistent poverty were as high, or

higher, than in Southern Europe, suggesting very low efficiency at bringing households with children out of poverty.

Comparing the position of children against those of other population groups we found that Irish children were more likely than those in other countries to experience persistent poverty relative to working-age adults without children, but less likely than those aged 65 or more. This suggests that child poverty is closely linked to the employment status and prospects of the adults in households with children, a finding underlined in the final section of the chapter that examined the role of socio-economic characteristics in shaping experience of persistent and recurrent poverty.

Results here showed that the processes underlying child poverty in Ireland were very strongly related to the labour market and restrictions either on participation or earnings there. Although Ireland has average levels of poverty persistence and recurrence among children, once we control for socio-economic factors its comparative performance improves significantly. This suggests that higher levels of disadvantaged groups in Ireland increase the levels of child poverty here compared to Denmark and the Netherlands, two of the best performing countries in terms of both cross-sectional and persistent child poverty rates.

Chapter 7

The Impact of Socio-Economic Origins on Poverty

7.1 Introduction

The earlier chapters in this study have been concerned with the dynamics and determinants of child poverty. Here we seek to complement that analysis by considering the consequences for adult outcomes of disadvantage in childhood. Such outcomes include educational qualifications, labour market situation and most particularly poverty. In doing so we also seek to trace the pathways between a series of chronologically ordered influences in a manner that allows us to distinguish between direct and indirect influences of specific advantages or disadvantages.

Bowles and Gintis (2003) observe that, while self-interest and differences in values account for part of the variation in views concerning the appropriate role of the state in reducing economic inequality, by far the most important fault line is that people hold different beliefs about why the rich are rich and the poor are poor. Handing down success or failure strikes many people as unfair while differences in achieved success are considered less objectionable, as long as the playing field is considered level. Concern with exploring such

sequences has increased in recent years in the context of increasing focus on social inclusion and exclusion.

7.2 Measures of Socio-Economic Origin and Current Socio-Economic Status in the Living in Ireland Survey

Our measures of socio-economic origin are drawn from the LII Survey conducted in 2001. The specific measures include the following:

- The level of educational qualification of both mother and father
- The social class of the main breadwinner when the person was growing up[10]
- A measure of the extent to which the individual's family was able to manage financially, compared to other families at the time, when he/she was growing up.

With regard to the current socio-economic position we focus on the characteristics of the household reference person (HRP) as follows:

- Level of educational qualification
- Social class
- Labour force status.

The income poverty indicator on which we focus is relative income poverty at 60 per cent of median equivalised

[10] We measure social class using a modified version of the Erikson-Goldthorpe (EGP) schema, which defines class positions in terms of employment status (employers, self-employed and employee) and regulation of employment via a 'labour contract' versus a 'service' relationship.

household income. (Results based on the 70 per cent line are included in the Statistical Annex.) With regard to consistent poverty, which involves the experience of basic deprivation and low income, we focus on the 70 per cent line, for the reasons explained in Chapters 3 and 4. The consistent poverty measure on which we focus uses the eight original basic deprivation items as described in Chapter 3. However, we will also report results relating to the alternative set of deprivation items described in Whelan *et al* (2003). Given the distinctive circumstances of older people, we restrict our analysis to those aged under sixty-five.

The trajectory that each individual has followed can be seen as involving a path from the starting point of parents' education to the termination point of current labour force status. At each stage of the trajectory the person's current status can potentially influence a later status either directly, without the mediating effect of later variables, or indirectly through variables that intervene between the current status and the outcome of interest. Where the variables in one's analysis are measured on continuous scales one can take advantage of that property to formally model these direct and indirect relationships by means of path analysis. For the analysis reported here both our independent and dependent take a categorical form. However, our analysis can be viewed as a more informal attempt to trace such pathways and to assess the cumulative effects of such influences.

7.3 Social Exclusion and Cumulative Disadvantage

Interest in cumulative disadvantage, including inter-generational transmission of such disadvantage across generations, is closely related to concerns expressed in the

social exclusion literature. These concerns revolved around the prospect that with increased unemployment, growth in atypical forms of work and decreased employment security, the transformation of European economies would become associated with the exclusion of a significant minority of the population from participation in the mainstream economy. One particularly influential notion of cumulative disadvantage emphasises a temporal causal sequence occurring over the life-course in which earlier disadvantages persist. As a consequence current economic status provides a somewhat inadequate guide to current levels of poverty and exclusion. Such a view could be contrasted with one emphasising the interaction of current socio-economic characteristics with geographical or residential location.

Despite the emphasis on the accumulation of disadvantage over time in the social exclusion literature, little reference was made to earlier sociological work on the transmission of disadvantage. For example, there is little reference to the literature on inter-generational social mobility and in particular to the fact that absolute opportunities for mobility need to be distinguished from inequalities in opportunity. Thus the level of social mobility in a society is influenced both by the expansion and contraction of particular social classes (what sociologists refer to as absolute mobility) and the extent to which the underlying rules that govern access to desirable positions promote fairness. This latter aspect, which focuses on how meritocratic a society is, falls under the heading of what sociologists describe as relative mobility.

Such categorisation takes on a particular significance in the Irish context where over the past thirty years accelerated economic development has produced a profound

transformation of the class structure. This structural change has been shown to be associated with a substantial increase in absolute mobility, at the same time as inequalities of opportunity, although not entirely unchanging, have displayed substantial persistence (Whelan and Layte, forthcoming). Similarly, while the emergence of cumulative disadvantage over time requires that a clear causal sequence can be established for the factors that are thought to accumulate and the impact of earlier effects must be shown to persist even when we have controlled for later factors, earlier work has shown that cumulatively disadvantaged groups emerge only where other conditions are fulfilled.

An elaboration of some of these conditions was provided in Blau and Duncan (1967). The first caveat refers to the fact that even where variables are correlated at what are considered to be quite significant levels in the social sciences, we are still left a long way short of perfect predictability. Risk, or even simultaneous exposure to multiple risks, does not translate into destiny. Outcomes such as poverty are determined by a multiplicity of factors and even in circumstances of multiple disadvantage individuals shape their destinies through coping strategies that involve mobilising personal and social resources.

The second factor that needs to be taken into account mirrors the concerns we expressed in distinguishing between relative and absolute social mobility. In a situation where relatively modest correlation exists between temporally sequenced causal factors, the size of the sub-groups characterised by an 'accumulation' of disadvantages in relation to an increasing number of factors necessarily declines the further one moves through the causal sequence. Thus the absolute number experiencing disadvantage on a

number of factors is inevitably smaller than the number experiencing disadvantage in relation to any one element.

It is therefore necessary to strike a balance between two somewhat different perspectives. The first emphasises the manner in which disadvantages are clustered, in the sense of being statistically associated. The second draws attention to the fact that the complexity of social relationships and the consequences of social change combine to create considerably more diversity in individual and household trajectories than a simple focus on correlation analysis might suggest.

In pursuing these issues we shall examine in turn:

- the impact of socio-economic origin factors on poverty
- the degree of association between socio-economic factors
- the combined impact of socio-economic origin on childhood financial experience and educational opportunities
- socio-economic pathways to income poverty – gross, net and cumulative effects
- the differential effect of parents' background characteristics.

7.4 Risk of Income Poverty and Socio-Economic Origins

In relation to parents' education we have information relating to both mother and father. When entering such information into our analysis, where information is available for both

parents we opt for the parent with the higher educational level. As is clear from Table 7.1, the parents' educational level is a powerful predictor of the likelihood of being in relative income poverty. For the 60 per cent income line the income poverty rate rises from 6 per cent for those for whom at least one parent has a third level qualification to 9 per cent for a Leaving Certificate, 14 per cent for a Junior Certificate and 21 per cent for a Primary Certificate. Thus those from the least qualified background are over three times more likely to be found below this poverty threshold. A similar situation prevails with regard to the 70 per cent line.

At this point we extend our analysis to consider the determinants of consistent poverty. Here we focus on the conventional measure employed in the NAPS monitoring exercise which identifies individuals living in households falling below 60 per cent of median income and experiencing enforced absence of at least one basic deprivation item. The second or 'alternative' version of the consistent poverty measure, in relation to which results are set out in the Statistical Annex, uses instead a set of deprivation items in the European Community Household Panel Study as described in Whelan *et al* (2003).

The absolute levels of poverty are substantially lower for the consistent poverty measures than for the relative income indicators. However, as shown in Table 7.1, the relationship to parental educational qualifications remains systematic. In the case of Primary Certificate or less, 5 per cent of respondents report consistent poverty. For the Intermediate Certificate group the reported level is 4 per cent, and for Leaving Certificate or higher it falls to 1 per cent.

Table 7.1: Poverty Rates by Parental Education

Education of parents	Below 60 per cent of median income	In consistent poverty
	Percentage poor	Percentage poor
Primary or less	20.6	5.4
Intermediate Certificate	13.5	4.2
Leaving	8.8	1.2
Third level	6.4	1.5

In Table 7.2 we turn our attention to the impact of the social class of the main breadwinner in the family when the individual was growing up. On the basis of exploratory analysis we distinguish between four categories as follows:

- Professional/managerial and higher non-manual
- Self-employed and farmers
- Lower non-manual and skilled manual
- Non-skilled manual.

From Table 7.2 it is clear that the poverty rate is systematically related to social class origins. The level of poverty is at its lowest at 9 per cent for those from higher non-manual or professional/managerial origins. For the intermediate class categories this almost doubles and ranges between 15 and 17 per cent. Finally for those from non-skilled manual origins the poverty rate peaks at 27 per cent. (Once again the pattern is very similar at the 70 per cent line; see Statistical Annex). For the consistent poverty measure

only 1 per cent of the professional/managerial group fulfil the joint conditions. For the self-employed including farmers this rises to 3 per cent, and for the lower non-manual and skilled manual group it rises to 5 per cent.

Table 7.2: Poverty Rate by Parental Social Class

Social class of parents	Below 60 per cent of median income	In consistent poverty
	Percentage poor	Percentage poor
Professional/managerial and higher non-manual	8.7	1.0
Self-employed and farmers	16.9	2.9
Lower non-manual skilled and semi-skilled manual	14.7	5.0
Non-skilled manual	26.6	7.7

The final indicator of socio-economic origin that we consider relates to the financial circumstances of the family when the individual was growing up. We distinguish between those who experienced 'great difficulty' in making ends meet, those experiencing 'some difficulty' and all others. From Table 7.3 it is clear that being reared in a household experiencing financial strain is highly predictive of income poverty. Of those least exposed to such strain 11 per cent were found below the 60 per cent of median income line. For those who experienced 'some difficulty' this figure almost doubled in reaching 21 per cent and for those experiencing 'great difficulty' it almost tripled in peaking at 30 per cent. The disparities at the 70 per cent line are almost as great. For the

consistent poverty measure the poverty rate varies from 9 per cent for those raised in households that had experienced great difficulty in making ends meet to 2 per cent for those raised on households buffered from such strain. For the intermediate group the rate was 6 per cent.

Table 7.3: Poverty Rate by Childhood Economic Circumstances (Difficulty in Making Ends Meet)

	60 per cent median	Consistent poverty
	Percentage poor	Percentage poor
Great difficulty	29.5	8.7
Some difficulty	20.7	6.4
Little difficulty	11.3	2.1

Clearly the available evidence shows that the first precondition for the emergence of cumulative disadvantage is established beyond doubt. All three of our indicators of socio-economic circumstances in childhood (parental education, parental social class and difficulty making ends meet) are strongly related to exposure to income poverty in adulthood.

However, one thing that should be kept in mind, and on which we will elaborate later, is that establishing that those with disadvantaged origins display much higher poverty rates does not necessarily imply that most people who currently experience poverty have been exposed to such disadvantaged circumstances. In Table 7.4 we illustrate this in relation to experience of financial strain during childhood. Focusing first on 60 per cent of median income we find that one in four of those below this line had been raised in families that experienced ‘great difficulty’ in making ends meet. Just

less than two in five had experienced some difficulty and the same number had experienced relatively little difficulty in making ends meet. At the 70 per cent line the corresponding figures were almost identical.

For both of the consistent poverty measures the poor are more likely to be drawn from those who had been reared in households that experienced economic strain. This was true of approximately 70 per cent of those reporting such poverty in comparison with a figure of approximately 60 per cent in the case of the relative income poverty lines.

Table 7.4: Current Poor Broken Down by Childhood Economic Circumstances (Difficulty in Making Ends Meet)

	60 per cent median	Consistent poverty
	Percentage poor	Percentage poor
Great difficulty	24.3	27.5
Some difficulty	38.2	45.4
Little difficulty	37.5	27.1
Total	100.0	100.0

7.5 Relationships Between Socio-Economic Origin Characteristics

The second precondition for the emergence of cumulative disadvantage is that background characteristics are correlated. Here we focus on the impact of education of parents' on the experience of financial strain in childhood, although equally strong relationships are observed between the latter and parental social class and, as we would expect, between parents' education and social class. In Table 7.5 we

show the impact of educational background on childhood financial circumstances. Among families where the most educated parent had a Primary Certificate or less, 20 per cent had experienced the most extreme level of financial strain. For those with Junior or Leaving Certificates this fell to 5 per cent and for those with third level qualifications to 2 per cent. Combining the 'great difficulty' and 'some difficulty' categories the respective figures as one goes from the lowest to the highest educational categories are 56 per cent, 35 per cent, 24 per cent and 17 per cent.

Table 7.5: Childhood Economic Strain by Parental Education

Parental education	No qualifications	Junior	Leaving	Third level
Childhood economic circumstances	Percentage	Percentage	Percentage	Percentage
Great difficulty	20.0	5.1	5.2	2.2
Some difficulty	35.8	29.2	19.0	14.7
Little difficulty	44.2	65.7	75.8	83.2
Total	100.0	100.0	100.0	100.0

7.6 The Combined Impact of Socio-Economic Origin on Childhood Financial Experience and Educational Opportunities

Before seeking to extend our analysis to incorporate characteristics that reflect the individual's experience in the labour market we wish first to provide an assessment of the combined impact of parental education and social class on

factors predating such involvement, e.g. childhood financial circumstances. In order to do so we shift from a consideration of percentages to a comparison of the odds for those with different combinations of background characteristics, using the odds ratio measure as defined in Chapter 6.

In Table 7.6 we look again at cumulative effect. However, this time we do so by calculating odds ratios derived from the multivariate logistic regressions predicting income poverty outcomes. The use of odds ratios instead of percentages has a number of advantages. In the first place, because of the stronger statistical assumptions, we are not as constrained by sparse numbers in the cells of large contingency tables. In addition the odds ratio provides us with an indicator of inequality that it is not affected by the marginal distribution of the variables included in our analysis.

In Table 7.6 we take as the reference category the sub-group whose parental class background is professional/managerial and whose educational background is third level. The odds on poverty for this group is then set to one and the odds for every other group set as a multiple of that of this benchmark group. These outcomes are calculated from a logistic regression, with a dependent variable that distinguishes those households that experienced 'great difficulty' in making ends meet from all others and with parental education and social class as the independent variables. As in all our subsequent analysis, we combine the two highest educational categories for parents.

From Table 7.6 we can see that the odds on being poor for the most disadvantaged group who combine both an unskilled manual background and the absence of other than

minimal qualifications for parents have an odds on having experienced extreme financial strain in childhood that is fifteen times higher than that for the reference category. Similarly, those from intermediate class origins but originating in the lowest education stratum have odds of between seven to eight times higher than the benchmark group of experiencing such strain. Generally exposure to childhood financial strain varies within educational category by social class, and correspondingly within the latter by educational background, as we would expect, thus producing a clear pattern of accumulating disadvantages.

Table 7.6: Odds Ratios Summarising the Cumulative Impact of Parental Education and Social Class on Relative Risk of Having Experienced Great Difficulty in Making Ends Meet in Childhood

	Professional/ Managerial and higher non-manual	Self-employed/ farming	Lower non-manual and skilled manual	Unskilled manual
No qualifications	3.57	7.03	7.90	14.85
Junior Cert.	0.90	1.77	2.00	3.75
Leaving Cert. or higher	1.00	1.97	2.22	4.17

In Table 7.7 we report a similar analysis, where the outcome or dependent variable is the likelihood that the respondent lacks educational qualifications. The benchmark group is the multiply advantaged one with educational origins at Leaving Certificate level or higher and professional/managerial origins who have also had little exposure to financial strain.

Compared to this group, and holding other factors constant, those whose parents had no qualifications had odds of themselves having no qualifications that were twenty-three times higher. For those who both originated in the lowest educational strata and came from an unskilled manual the inequality in odds of being unqualified rose to almost ninety-to-one. Finally, when the additional disadvantage of experiencing a high level of financial strain in childhood is included, the disparity soars to over two hundred. Thus the educational capital with which individuals confront the realities of competition in a market society is substantially predictable when one takes into account their profile in terms of socio-economic origin.

Table 7.7: Cumulative Impact of Socio-Economic Origins on Odds of Having No Qualifications

Socio-economic background	Odds
Reference category: Parents third level, professional/ managerial etc, little financial strain	1.00
Parent no qualifications	22.84
+Parent unskilled	88.58
+Great difficulty in making ends meet in childhood	202.11

7.7 Socio-Economic Pathways to Poverty: Gross, Net and Cumulative Effects

In this section we seek to develop an understanding of the pathways through which socio-economic origin characteristics impact on current poverty status. On the basis of preliminary analysis we have opted to pursue this issue in relation to educational origins and childhood financial

circumstances. We have excluded social class background from the analysis because we found that when these earlier factors were taken into account very little was added to our analysis by its introduction. For each of the variables of interest our analysis proceeds in the following fashion. We commence by showing the gross impact of the variables on odds of being in poverty. We then introduce successively variables at later stages in the causal sequence and estimate the net effect at that point of the measure of socio-economic origins with which we are concerned. The full details of the logistic regression equations from which the gross net and cumulative estimates reported in this section are derived are set out in detail in Statistical Annex Tables A7.6 to A7.9.

In Table 7.8 we focus on educational background, and in particular on the increased odds of being in income poverty brought about by the highest level of parental education being a Primary Certificate or less compared to a Leaving Certificate or better. From this table we can see that, if we start with the odds on falling below the 60 per cent of equivalised median household income, the increased odds on being in poverty before the mediating role of any of the later influences is taken into account is of the order of 3.54, involving a difference of 2.54 between those from the lowest and the highest educational origins. When we control for childhood financial circumstances this declines to 2.73, involving a reduction in the difference in odds to 68 per cent of the gross value. Further controlling for educational qualification produces an odds ratio of 1.59, with the difference on odds now reduced to 23 per cent of the original value.

Bringing social class into the equation leads to a further decline to 1.19, resulting in the difference in odds declining to 7 per cent of gross difference. Finally, controlling for

employment status leads to a further decline to 2 per cent of the original difference. The results for the 70 per cent line do not differ significantly. The pattern for the consistent poverty measures are extremely similar but the gross effect is in each case greater than for the income poverty measures, with the odds ratio exceeding four to one on both occasions.

Table 7.8: Gross and Net Odds on an Individual from Primary Education Background, Compared to One from a Leaving Certificate or Higher Background, Experiencing Different Types of Poverty

	60 per cent median odds ratio	Consistent poverty odds ratio
Parental education alone:	3.54	4.12
Controlling for:		
Childhood economic circumstances	2.73	2.71
+ Education	1.59	1.58
+ Social class	1.19	1.25
+ Employment status	1.06	1.07

In all cases the impact of education is mediated by childhood financial circumstances with some 30 per cent of the original effect being mediated by the latter. However, parental education continues to have a substantial effect. Taking into account the respondent's own education accounts for approximately three-quarters of the gross effect. The addition of current social class reduces the effect to one-tenth of its original size. Finally, including labour market status allows us to account for almost the entire impact of parental education.

Educational origin thus impacts on current income poverty through a variety of routes. Of course our assessment of the importance of any particular link in the chain will depend on the number of earlier factors for which we control and, to some extent, the outcome on which we focus.

However, our analysis of income poverty indicators does suggest that the mechanisms underlying the transmission of inter-generational disadvantage through parental education operates primarily through its impact on the individual's own educational capital and secondarily through childhood economic circumstances, with social class and employment status mediating additional but more modest components. In other words, what we are suggesting is that, while social class and employment status are powerful predictors, most, but not all, of the information contained in parental education information regarding one's future status in relation to such characteristics is already captured in the childhood circumstances and the individual's education variables.

In Table 7.9 we report the results of a similar exercise in relation to financial strain in childhood. From this table we can see that the gross impact of having been raised in a family that had great difficulty in making ends meet, compared to those who had little difficulty in that regard, on the odds of being below the 60 per cent is 2.01. Expressed in terms of differences in odds the relevant figures are 2.01 and 1. The figure is reduced to 2.06 by controlling for education. It declines further to 1.84 with the introduction of social class and to 1.69 with the addition of employment status. Thus the introduction of education accounts for just over 50 per cent of the original effect. Adding social class raises this figure to 60 per cent and the further addition of employment status brings it to two-thirds.

Table 7.9: Gross and Net Odds on an Individual Whose Family Experienced Great Difficulty in Making Ends Meet during His/Her Childhood, Compared to One whose Family did not Experience Difficulty, Experiencing Different Types of Poverty

	60 per cent median odds ratio	Consistent poverty odds ratio
Childhood economic strain alone:	3.01	4.24
Controlling for:		
+ Education	2.06	2.67
+ Social class	1.84	2.45
+ Employment status	1.69	2.36

Once again the gross effect is higher for the consistent poverty measures. Controlling for education reduces such effects by half but controlling for employment status and social class produced a more modest additional reduction than was the case for the income poverty lines. In contrast with parental education, childhood financial circumstances continues to have a significant impact even when we have introduced our controls, with the net odds of being poor being 1.7 times higher at the 60 per cent line, 1.45 times higher at the 70 per cent line, and 2.34 times higher for both of the consistent poverty measures.

At this point we shift our attention from net and gross effects to cumulative effects. In Table 7.10 we show the extent to which the risk of poverty increases as disadvantages accumulate. About 21 per cent of those whose best-educated parent had a Primary Certificate or less fell below the 60 per cent of median income threshold. Among this

group, for those who had been raised in households experiencing a high level of economic strain, the risk level increased to approximately one-third. The addition of the current absence of qualifications increases the figure to approximately one-half. Finally, when current labour market disadvantage also comes into play the current risk of exposure to poverty reaches or exceeds two-thirds.

Table 7.10: Cumulative Risk of Experiencing Poverty with Different Measures

	60 per cent median	Consistent poverty
	Percentage poor	Percentage poor
Primary education origins	20.6	5.4
+ Great difficulty in making ends meet	31.9	9.5
+ No qualifications	46.2	13.9
+ Unemployed in past year	65.6	21.2

For the consistent poverty measure, starting from a lower base similar progressions are observed, from 5 per cent to 21 per cent. Thus in the case of relative income poverty we observe a cumulative tripling in the poverty rate, whereas in the case of consistent poverty it comes closer to a quadrupling.

In Table 7.11 we again look at cumulative effect by calculating odds ratios. The use of odds indicators instead of percentages allows us to reintroduce the current social class variable, which was excluded from the analysis reported in

Table 7.10 because of problems with sparse cells. In addition, as we noted earlier, the odds ratio provides us with an indicator of inequality that is not affected by the marginal distribution of the variables included in our analysis. In Table 7.11 we show the manner in which the odds ratios comparing the multiply advantaged with multiply disadvantaged rise as the level of disadvantage accumulates.

At the 60 per cent line those whose best educated parent had a Primary Certificate or less had an odds 3.5 times higher of falling below the poverty threshold, compared to someone whose parent had a Leaving Certificate or higher. For those in the former group who had been raised in households experiencing a high level of financial strain the odds of being poor rose to 6.8 times higher than for the group most advantaged on both dimensions. Where the contrast between those currently possessing no educational qualifications versus those with third level qualifications is added to the mix, the disparity in risk levels between the multiply disadvantaged and advantaged climbs to 18:1.

Accentuating the contrast by incorporating the impact of unskilled manual social class position as against professional-managerial results in the relevant odds-ratio almost tripling in reaching 53:1. Finally, adding an effect that captures the disadvantage involved in being in a household where the reference person is inactive or unemployed in the past year in comparison with being in employment and without any recent experience of employment leads to a further quadrupling of the figure and produces an odds ratio of over 200:1.

These extreme disparities reflect not only the high rates of poverty to which cumulatively disadvantaged groups are exposed but also the manner in which multiply privileged

groups are insulated from the risk of poverty. A pattern similar to that observed for the income poverty lines is found with the consistent poverty measure, although the additional effects of being unskilled manual is a good deal more modest, leading to a final odds ratio of 114:1.

The combined effects of socio-economic origins as captured in parental origins and childhood financial circumstances lead to a level of disadvantage in relation to risk of poverty that ranges from six to eleven to one. This constitutes a substantial degree of inter-generational transmission of disadvantage. However, as we have earlier noted, risk is not destiny. The individuals comprising this group are subsequently significantly differentiated by their own educational performance, social class position and labour market experience. At each stage 'success' or 'failure' in transition to a more favourable status has substantial consequences.

Table 7.11: Cumulative Disadvantage Odds Ratios for Different Poverty Measures

	60 per cent median odds ratio	Consistent poverty odds ratio
Parents had primary education or less	3.54	4.12
+ Great difficulty in making ends meet	6.78	9.75
+ No qualifications	18.36	16.38
+ Unskilled manual	53.10	26.86
+ Unemployed in past year	207.00	114.35

The previous analysis demonstrates clearly the manner in which advantages accumulate to produce strikingly high poverty rates and extremely substantial inequalities. However, in attempting to assess the full significance of these results, it is necessary to take into account not only risk levels but also incidence levels. In other words, we need to know not just the poverty rates of the cumulatively disadvantaged groups but also the proportion of the poor that such groups comprise.

These details are set out in Table 7.12 where we can see that those coming from the least favoured parental education backgrounds comprise three quarters of those in poverty. Those who in addition experienced great difficulty make up one fifth of those below the income poverty line and one quarter of those in consistent poverty. The sub-group who also lack educational qualification constitute approximately one-seventh of the income poor and one-sixth of the consistently poor. Finally, those who are also disadvantaged in the labour market make up approximately one in ten of the income poor and one in seven of the consistently poor.

Table 7.12: Cumulative Disadvantaged Groups as a Percentage of those Experiencing Different Types of Poverty

	60 per cent median	Consistent poverty
	Percentage of the poor	Percentage of the poor
Primary education origins	73.8	73.7
+Great difficulty in making ends meet	21.8	25.6
+ No qualifications	14.8	17.7
+ Unemployed in past year	12.0	15.5

Thus, as the risk of poverty relating to the cumulatively disadvantaged rises, the fraction that group comprises of the poor declines. While those exposed to the most extreme forms of cumulative disadvantage exhibit extremely high poverty rates, most of those experiencing income poverty do not display cumulative disadvantage.

In Table 7.13 we repeat the previous analysis, except that this time we make the population the denominator as we seek to establish what proportion of the total population the cumulatively disadvantaged groups comprise. Reflecting the low levels of education in the earlier generation those whose parents lacked educational qualifications make up 60 per cent of the populations. However, the addition of the condition relating to childhood financial circumstances immediately reduces this to 12 per cent. Requiring that educational qualifications are lacking in the current generation reduces this further to 3 per cent. Finally, the addition of labour market disadvantage produces a figure of 2 per cent.

Table 7.13: Cumulatively Disadvantaged Groups

	Percentage of population
Primary education origins	59.5
+ Great difficulty in making ends meet	11.5
+ No qualifications	2.5
+ Unemployed in past year or inactive	2.0

7.8 Differential Effect of Parents' Background Characteristics

Throughout our analysis we have operated with what is normally referred to in the social mobility literature as a 'dominance' procedure. Thus where we have information available on both parents we have opted for the one with the highest educational qualifications or social class.

However, particularly in the case of educational qualifications and specifically in relation to the educational achievement of the off-spring, we might expect that fathers' and mothers' characteristics might have differential effects and that they might have differential effects for male and female children. Thus in Table 7.13 we show the results of an ordered logit analysis which uses both parents' educational background information to predict the respondent's educational attainment. This model assumes that the successive odds for the cumulative distribution are proportional.

Two key findings emerge from Table 7.13. For both men and women, their mother having an Intermediate Certificate is more important than their father possessing the same level of qualification – though a father possessing an Intermediate Certificate is more important for sons than daughters. Furthermore, while a mother or a father having a Leaving Certificate is equally important for the educational achievement of a son, for daughters the consequences of a mother possessing such a qualification is significantly greater. While a father possessing an Intermediate or Group Certificate is more important for sons than daughters, a mother having a Leaving Certificate or higher is more important for daughters than sons.

Table 7.14: Ordered Logit of the Impact of Father's and Mother's Educational Qualifications on Respondent's Education Broken Down by Sex

	Men		Women	
	B	Sig	B	Sig
Father's education				
Ref: No qualifications				
Intermediate or Group Certificate	0.547	***	0.338	***
Leaving Certificate or Higher	1.130	***	1.065	***
Mother's education				
Ref: No qualifications				
Intermediate of Group Certificate	1.033	***	1.146	***
Leaving Certificate or Higher	1.158	***	1.445	***
Reduction in G^2	745.288		801.241	
Degrees of freedom	4			
Nagelekerke R^2	0.216		0.229	

Note: Reduction in G^2 and Nagelekerke R^2 are measures of how well the estimated statistical model represents the underlying data.

7.9 Conclusions

In the introduction to this chapter we identified an initial set of conditions that must be fulfilled if a process by which cumulative disadvantage is transmitted across generations is to emerge. The first of these conditions is that socio-economic background condition must be significantly related to current risk of poverty. This condition is clearly fulfilled. Those from less advantaged education backgrounds, from lower socio-economic groups and with less favourable economic circumstances in childhood are all exposed to higher risks of poverty in adulthood. The second condition is that there must be a reasonable level of correlation between

the background factors. This too has clearly been shown to be the case. The final condition is that the influence of earlier factors in the causal chain should continue to be significant even when one controls for later influences. This has been shown to be true to a significant extent, although the degree to which it is true depends both on the particular influence under consideration and the number of factors for which one controls.

We have presented significant evidence of accumulation of disadvantage. The odds ratio summarising the contrast in poverty risk for the most favoured and least favoured groups increases progressively, with accumulation of disadvantages, from three to one to over two hundred to one. This trend reflects not only the increased risk of poverty for the least favoured but the insulation of the most favoured from exposure to poverty. Approximately half the influence of childhood financial circumstances is accounted for by education and current economic situation. But a significant additional effect remains. Thus the influence of origin characteristics persists over time, particularly in the case of childhood financial circumstances.

As Mayer (1997) and Duncan *et al* (2005) argue, inter-generational transmission takes place via a variety of channels that include socio-economic status, parenting styles, the home environment, genetic influences and role modelling. The characteristics of both parents may be important and may have differential consequences depending on the sex of the child. Authors such as Esping-Andersen have paid increasing attention to the hypothesis that parental influence on cognitive development in the pre-school years is particularly pronounced. As Waldvogel (2001) suggests, universal provision of high-quality childcare may be seen as

particularly important from this perspective. However, as Esping-Andersen (2004b) acknowledges, there are also crucial transition points after early childhood, most importantly how long to stay in education.

There is ample evidence that such decisions are substantially influenced by material circumstances, not only economic circumstances but also the kinds of cultural and social capital that allow parents and children to successfully negotiate the educational system (Boudon, 1974; Breen and Goldthorpe 1999, 2002; Erikson *et al* 2005). There are significant class differences in educational choices (at given levels of performance), and earlier choices or anticipatory decisions may also impact on later performance.

It is also important to stress that the levels of association we observe between social origins and adult outcomes fall a long way short of social determinism. Ultimately an assessment of how people escape from or avoid poverty and an understanding of the processes involved is as important as understanding the unfolding of cumulative disadvantage. As Rutter (1994) notes, the most vivid illustration of this point is provided by longitudinal studies that show that even with very extreme conditions of environmental adversity, a radical change in environment can result in a striking improvement.

We should also stress that consequences of any set of inter-generational associations is crucially influenced by processes of structural change that can result in strikingly different socio-economic distributions in the later as opposed to the earlier generation. Thus, as Whelan and Layte (2004 and forthcoming) have argued in the Irish case, an upgrading of the class structure can create a 'rising tide that raises all boats'. The consequences of processes of cumulative

disadvantage depend not only on the scale of relative disadvantages or inequality of opportunity but on the actual numbers experiencing such disadvantage. As we have shown, as the accumulation of disadvantage leads to soaring poverty rates the numbers exposed to such risk levels decline dramatically. This of course does not in any sense diminish the scale of difficulty of those unfortunate enough to find themselves in that situation. However, it does mean that only a small minority of those exposed to income poverty can be characterised in such terms.

Chapter 8

Conclusions and Policy Implications

8.1 Introduction

This study has taken as its point of departure the deep-seated concern that poverty during childhood can have a very wide range of adverse effects on those who experience it, ranging from immediate hardship to long-term damage to life-chances. Low income persisting over a sustained period is most likely to be associated with severe hardship, and would be expected to have very different effects to a transitory experience of poverty. Understanding the dynamics of low income over time, the factors associated with escaping from poverty, and the consequences of economic disadvantage in childhood for later outcomes, are essential in informing policies and programmes to tackle child poverty. This study has aimed to explore in some depth what can be learned from such a dynamic perspective on child poverty in Ireland, using longitudinal data from the LII Survey from 1994 to 2001.

The first aim was to capture the extent to which low income is persistent versus transitory for Irish children, and the types of household most exposed to persistent low income. The next central concentration was on the duration of income

poverty spells. This involved presenting both a descriptive picture and an econometric analysis of the factors influencing the duration of income poverty spells for households with children, including placing findings for Ireland alongside similar ones we derived for other EU countries. Finally, we investigated the inter-generational transmission of poverty and disadvantage, looking at the association between a range of socio-economic outcomes in adulthood and childhood economic circumstances. In this concluding chapter we summarise the main findings and focus on their implications for policy.

8.2 Key Messages and Conclusions: Experience of Poverty

We began by reviewing the cross-sectional picture of child poverty. About one in five Irish children are in households below 60 per cent of median income, a widely-used measure of relative income poverty – or 'risk of poverty' in current EU usage. Children have a higher rate of relative income poverty than working-age adults, though the gap between them had narrowed since 1994, and also have a higher rate of 'consistent poverty'. In the EU Ireland is among a group of countries with a relatively high relative income poverty rate for children – together with Spain, Greece, Portugal, and the UK.

Turning to dynamics and poverty persistence, we found that half of all the children observed in the LII survey each year from 1994 to 2001 did not spend any time in a household below the 60 per cent of median income threshold over that period. Only 4 per cent were below the threshold in all eight years, but one in four spent a substantial proportion of the time (at least three years) below it. Children experienced

substantially more income poverty than working-age adults without children, though less than older people. About 18 per cent of children had one transitory period below the income threshold, 10 per cent had recurrent spells of poverty, and 18 per cent had one long spell in income poverty.

The labour force status of household members when first observed in the panel was seen to be very strongly associated with subsequent experience of relative income poverty. About 28 per cent of children were in households where the reference person was unemployed or inactive at the outset, and almost all these spent some time below the 60 per cent threshold, with a substantial proportion persistently poor. The households of children who avoided falling below the threshold were also much more likely to have had other adults in the household at work at the outset.

Where there were two parents/partners in the household and both were employed when first observed in the panel, very few experienced recurrent or persistent poverty over the period. By contrast, 60 per cent of the children in couple-headed households where neither partner was employed initially experienced persistent income poverty. Where there was only one partner present the subsequent pattern of income poverty persistence was critically dependent on whether he/she was employed at the outset.

Even in what turned out to be a remarkably buoyant macroeconomic context, experience of income poverty was strongly predicted by the extent to which the household depended on social welfare at the start of the period. Among children in households where social welfare initially accounted for more than three-quarters of household income, 58 per cent experienced persistent income poverty.

In addition, econometric models revealed that living in a household where the reference person had lower levels of education or was reporting less than good health increased the probability of persistent poverty, as did having three or more children.

Focusing on consistent poverty – that is, being in a household both below a relative income threshold and reporting basic deprivation – about 29 per cent of children experienced consistent poverty at some point over the panel, and about 15 per cent of children spent three or more years in consistent poverty. Almost all the children who were in consistent poverty in 1994 went on to experience recurrent or persistent low income over the life of the panel. Looking at the other side of the coin, children who experienced persistent low income also spent much more time in consistent poverty than others.

8.3 Key Messages and Conclusions: The Duration of Poverty Spells

Analysis of the duration of *spells* below the relative income threshold showed that about 60 per cent of spells were of a single year, while about 23 per cent of poverty spells were of three or more years duration. The mean spell duration was just under two years; children had an average duration of 1.72 while those aged 65 or over had longer durations.

Multivariate hazard rate models suggested that children had a lower probability of escape from below the threshold in each period than adults. Level of education and initial labour force status of the reference person and the number employed in the household also had a major impact. Among households with children, those with three or more children were more likely to experience persistent poverty.

That could arise for a number of reasons. It could simply be a statistical association that does not in fact reflect a true causal relationship, but arises because some other characteristics common in larger households lead to a higher poverty risk. However, having controlled for a wide range of other characteristics, the impact of number of children persisted, so that does not appear to be the explanation. Having more children increases the 'needs' of the household and directly affects the likelihood that its income – adjusted to take those needs into account – falls below a given threshold.

Children may also reduce the likelihood that parent(s) work, and thus indirectly increase the likelihood of low household income. This could be because childcare costs are high, or because social welfare benefits are higher where there are children, so the incentive to take up work rather than remain unemployed may be less. Our results suggested that this was a factor for lone parents, with younger children found to have a greater impact than older ones in reducing the probability of a poverty spell ending.

8.3.1 A Comparative Perspective on Duration

Data from the European Community Household Panel for most of the 'old' 15 member states of the EU showed that levels of persistent income poverty for children were lower in Ireland than in Southern countries and the UK, but higher than in other members. However, the gap in the likelihood of persistent low income between children and working age adults without children was particularly high in Ireland (and the UK).

Children were found to face a higher probability than adults of experiencing recurrent or persistent poverty in almost all the

countries studied, controlling for a wide range of household characteristics. However, educational attainment and labour market 'failure' appeared to play a particularly important role in Ireland and some other countries in the disadvantaged position facing children.

Having three or more children in the household increased the probability of recurrent or persistent poverty in every country. Having a youngest child aged under 12 has a greater impact than when he/she is aged 13-17, although no difference was found between the child being aged under 5 versus 5-11.

8.4 The Inter-Generational Transmission of Disadvantage

The study then shifted focus to the links between the experience of adults over the LII survey period and the circumstances in which they lived as children. This drew on a range of information about the occupation/social class and education levels of their parents and the economic circumstances of their household when the respondents were growing up. The analysis was framed in particular around the related notions of inter-generational transmission of disadvantage and cumulative disadvantage.

The results revealed first of all that the current risk of poverty was strongly related to socio-economic background. Those from less advantaged education backgrounds, from lower socio-economic groups and with less favourable economic circumstances in childhood all had higher risks of poverty in adulthood. For example, 20 per cent of those whose parents had no more than primary education were below the 60 per cent of median threshold, compared with only 6 per cent of those for whom at least one parent had third level education.

A similar gradient was seen with respect to currently being in consistent poverty. The gradient was if anything steeper when people were categorised by parental social class, or the extent to which their family had great difficulty making ends meet when they were growing up.

There was a substantial level of correlation between these three family background factors. In other words, where the parents had low education levels the respondent was much more likely to report that they also had great difficulty making ends meet, and likewise there was a strong association between parental social class and education and social class and difficulty making ends meet. All three were also found to be strongly related to the individual's own educational achievements. For example, an individual whose parents had no educational qualifications beyond primary level had 23 times the risk of themselves having no formal qualification compared to someone whose parents had third-level education.

The impact of childhood circumstances on current poverty was seen to operate partly but not entirely through the individual's own education level, social class, and labour market experience. Parents' education seemed to operate primarily through its impact on the individual's own educational capital and secondarily through childhood economic circumstances, with social class and employment status mediating additional but more modest components. On the other hand, having had great difficulty making ends meet when growing up remains a significant predictor of poverty now, even when control variables capturing the individual's own education, social class and employment status are included.

Significant evidence of accumulation of disadvantage was identified. The odds of experiencing severe financial strain in childhood was fifteen times higher for those from the least favoured educational and social class origins than for their most favoured counterparts. Extending the causal sequence to include successively the impact of childhood financial circumstances, educational qualifications and labour market status saw the poverty rate rise progressively from one in five, to one in three, to one-half and finally to two-thirds. The odds ratio summarising the contrast in poverty risk for the most favoured and least favoured groups increased progressively, with accumulation of disadvantages, from three to one to over two hundred to one. This reflects not only the increased risk of poverty for the least favoured, but also the insulation of the most favoured.

On the other hand, the numbers affected by such an accumulation of disadvantage may be small. About three-quarters of those in poverty had parents with no more than primary education, but only about one-quarter also reported great difficulty making ends meet when they were growing up, and only 15 per cent had no educational qualification beyond primary level. Thus as disadvantages accumulate and the likelihood of being in poverty rises, the proportion of the poor facing that accumulation of disadvantages falls sharply.

Finally, we looked in some detail at the potentially distinct influence of the characteristics of the father versus the mother, in terms of their education and social class, on the son's or daughter's educational outcomes. The results suggested that both parents' educational level had an impact for both men and women; interestingly, the mother having a Junior/Intermediate Certificate (or equivalent) seemed to have a bigger impact than the father having that level for both men

and women, while the mother having a Leaving Certificate seemed more important for women than men.

8.5 Policy Implications

We now turn to the implications of the findings of this study for the design of strategies and policies to reduce child poverty in Ireland and alleviate its effects. The study has aimed at increasing our understanding of child poverty dynamics and the transmission of disadvantage rather than at evaluating particular institutional structures or policy interventions, but this does not mean it has limited relevance for policy. On the contrary, knowing about the scale and nature of poverty persistence and inter-generational transmission is a critical ingredient in policy formation.

We see this first in the contrast between the cross-sectional and dynamic perspective on the extent and nature of child poverty as reflected in household income. Conventional relative income poverty measures suggest that about one Irish child in five is 'poor'. However, analysis of how the income of their households evolved over time shows that a significant proportion of these children spend only a relatively short period below the relevant low income threshold. We found, at the extreme, that only 4 per cent of children spent all eight years between 1994 and 2001 below 60 per cent of median income. Perhaps more importantly, about 25 per cent spent a substantial proportion of the time (at least three years) below it – and these are by no means the same as the children who will be seen below the threshold at any particular point in time, so the conventional cross-section picture could seriously mislead as to which children are in fact most in need.

Taking a dynamic perspective and focusing on the approximately one-quarter of children who experienced recurrent or persistent income poverty allows the key distinguishing characteristics of their households to be identified. This reveals first that connection with the labour market – or rather lack of it – is vital. The number of people in the household who are in paid work was a core predictor of subsequent experience of income poverty and of the length of income poverty spells. Where a child had two parents in the household and both were at work at the start of the panel survey, we saw that the likelihood of subsequently experiencing recurrent or persistent income poverty was very small indeed. Both parents/partners being present and working insulates children from poverty.

At the other extreme, where both were present but neither was in work at the start of the panel, a very high proportion indeed – four out of five – experienced recurrent or persistent low income. So a very clear priority for policy is to do everything possible to ensure that at least one partner in such households is in paid work. That will not insulate the children fully from persistent income poverty, but it will substantially reduce the probability that they experience it.

The position of lone parents is distinctive. It is worth emphasising that where that lone parent was in work at the outset of the panel, the subsequent experience of recurrent or persistent low income was no worse than that of couple-headed households where the man was employed – and better than couple-headed households where the woman was employed. However, in the majority of cases that lone parent was not in work, and income poverty experience for the children was much greater. Working is not a panacea for lone parent households, but it does reduce subsequent exposure to income poverty very substantially.

The range of econometric analyses presented in the study also consistently bears out the importance of parental educational attainment in determining which children do and do not experience sustained low income or longer versus shorter income poverty spells. Those with no second-level qualification in particular face much greater risks of sustained low income than others, and both they and their children pay the price in terms of lower living standards. Conversely, policies that succeed in reducing school drop-out impact not only on the individuals directly affected but on their children, and this needs to be incorporated into cost-benefit analyses of their value.

The results also suggest, again across a range of different analyses, that children face a higher risk of sustained income poverty than working-age adults without children, and children in larger families face a heightened risk of sustained low income and longer spells in income poverty. This reflects both the direct and indirect ways in which children increase a household's risk of income poverty. Children directly increase the level of resources required by a household to attain a given standard of living, but they also indirectly influence the household's income via their impact on the parents' – particularly the mother's – labour market behaviour. Both the direct and indirect effects will vary with the age of the child and the presence of other children.

The study's findings suggest that having three or more children in the household has a particularly marked effect on the likelihood of sustained low income. While teenagers seem to entail higher direct costs than younger children, this seems to be generally outweighed by their lower indirect costs as parental work is much less affected. This has clear implications for the way child income support payments are

framed. It suggests that paying a premium for older children is not likely to be effective in targeting those most in need, whereas paying a larger amount for third and subsequent children – as is done in the current child benefit structure – is better targeted in terms of poverty risk. However, it is also noteworthy that the study did find that for lone parents younger children had a more pronounced effect in reducing the probability of exiting poverty than older ones.

The best way to improve child income support has been much debated. Both the significant increase in universal child benefit and the new payment in respect of all young children announced in the Budget for 2006 are targeted very broadly, at all families and all families with young children respectively. Changes in the family income supplement, raising the thresholds for larger families in particular, will also have an impact for those in employment. The structure of child income support may still need to be re-evaluated, however, in particular in terms of the position of those relying entirely on the social welfare system as well as those seeking to make the transition from welfare to work. As the recent policy review by Combat Poverty (2005) makes clear, the level of income support more generally rather than just the child support element, and services as well as cash transfers, play a central role in influencing the living standards and well-being of children.

Overall, it is worth reiterating that a substantial proportion of the apparent disadvantage suffered by Irish children in terms of poverty risk *vis-à-vis* adults reflects the education, employment and health status of their household reference person and numbers in work in the household. When these are taken into account there is a remaining unexplained excess poverty risk for children, but this is considerably

smaller in Ireland than in some other EU countries, including the UK. This suggests once again that a successful strategy to tackle child poverty in Ireland will need to have a focus that is much broader than child income support *per se*.

Finally, the findings of this study in relation to the inter-generational transmission of disadvantage point very clearly to the continuing impact of economic circumstances in childhood on later outcomes. While those outcomes are not pre-determined, the chances of experiencing sustained poverty in adulthood vary enormously depending on one's childhood socio-economic environment. The pathways through which such effects operate are likely to include not only the financial constraints on parental capacity to invest in their children's 'human capital', but also socio-economic status, parenting styles, home environment, genetic influences and role modelling.

This should not however give rise to undue pessimism regarding the impact that policy can have. These effects of social origins are likely to work through two rather different mechanisms, the first involving the impact of family conditions and parental stimulation in early childhood in particular, but the other involving the decisions people make at crucial transition points in the education system and labour market. Such decisions are substantially influenced by economic uncertainty and the kinds of cultural and social capital that allow some parents and children to successfully negotiate the educational system.

It is not only the inter-class differences in academic performance that emerge at early stages of development, but also differences in educational choices later on, that matter – and earlier choices may have a substantial impact on later

performance. So strategies that successfully intervene to reduce barriers and widen people's choices at an early stage can have a cumulating effect in terms of later success. In addition, processes of structural change can result in an upgrading of the class structure such that a 'rising tide lifts all boats'.

So even among those with similar childhood socio-economic backgrounds and circumstances, progress through the education system and the labour market varies a great deal. The levels of association observed between social origins and adult outcomes fall well short of social determinism, and only a small minority of those exposed to income poverty can be characterised as having faced the more extreme versions of cumulative disadvantage. This opens up the very real possibility for policy to intervene on various levels: it can seek both to reduce the extent of societal inequalities in childhood socio-economic circumstances, and to weaken the linkages between those circumstances and the opportunities that people face as they progress through the education system and into the labour market.

Experience elsewhere shows that significant progress can indeed be made on both these fronts, provided the complex web of mechanisms and causal pathways involved are taken into account and policy seeks to intervene on a sufficiently broad-ranging basis. We conclude by emphasising the implications for the forthcoming national longitudinal study of Irish children, which offers a unique opportunity to trace those pathways. That study will be selecting a representative sample of Irish children from an early age and following them over time, to track their development and circumstances and seek to understand the factors affecting them, and will be designed to policy development. This study serves to

underline how essential it will be to capture the socio-economic circumstances of their households as fully as possible, not only in terms of current income but also income trajectories, living standards, life-style and deprivation, and levels of economic strain.

Glossary of Terms

Attrition: the loss of individuals or households from a longitudinal survey due to non-response.

'Censored' data: a spell (for example in poverty or unemployment) whose beginning and end were not captured in the survey. A 'left-censored' spell is one that had already begun when the person was first observed in the survey, while a 'right-censored' spell was still going on when the person was last observed.

Consistent poverty: a household that is both below a relative income threshold and reports 'basic deprivation'; basic deprivation is measured here by a set of eight non-monetary indicators of deprivation.

Discrete Time Hazard Rate Model: a statistical model based on logistic regression (see below) which examines the propensity of a variable to change over a defined observation period.

European Community Household Panel (ECHP): longitudinal survey organised by Eurostat, the Statistical Office of the European Communities, and carried out in most of the then member states of the EU-15 from 1994 to 2001.

EU-SILC: EU Statistics on Income and Living Conditions, a common framework for the systematic production of

statistics on income and living conditions, across the member states; the survey to produce the statistics required for Ireland is being carried out by the CSO since the second half of 2003.

Equivalence scale: a measure of household size and composition used in adjusting household income for the differences in 'needs' associated with differing size and composition; for example, a value of 1 can be assigned to the first adult in the household, a value of 0.66 to each additional adult, and a value of 0.33 to each child, and these summed to give the number of 'adult equivalents' it contains; equivalised income is then derived by dividing household disposable income by that number. Disposable income is all income received by household members from earnings, self-employment (including farming), rent, interest, dividends, and social welfare transfers, after deduction of income tax and employee social insurance contributions.

Household reference person (HRP): the person responsible for the household's housing costs, or if more than one person is responsible then the older one of these.

Mean: the arithmetic average.

Median: the point which divides a distribution in two – for example, the income level above and below which half the recipients falls.

Odds ratio: the likelihood of one group being in a specified situation (for example in poverty) relative to another, computed by dividing the proportion in one group in that situation by the proportion in the other group in that situation.

Ordered Logit Model: a statistical method used for analysing a variable which has discrete categories rather than being continuous, but which nonetheless have a defined ordering.

Panel survey: survey that aims to follow a set of respondents over time and obtain repeated measures relating to that sample (in contrast to a cross-sectional survey which, if repeated, would interview different samples each time).

Persistent poverty: measured here as falling below the income poverty threshold for a spell of 3 years or more over the period 1994-2001.

Poverty spell: an unbroken period in poverty, for example falling below an income poverty threshold.

Product Limit Estimate: a statistical technique used to calculate the rate of change in a variable such as the rate at which people leave poverty. This allows the average length of poverty spells to be calculated as well as the proportion of people still poor after a given length of time.

Recurrent poverty: measured here as falling below the income poverty threshold more than once over the period 1994-2001, but not for more than 2 years in any spell.

Relative income poverty: falling below an income threshold derived as a proportion (for example 50 per cent or 60 per cent) of mean or median income.

Transient poverty: measured here as falling below the income poverty threshold for only one spell of no more than 2 years over the period 1994-2001.

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Statistical Annex

Supplementary Results for Chapters 2, 3, 6 and 7

Supplementary Results for Chapter 2

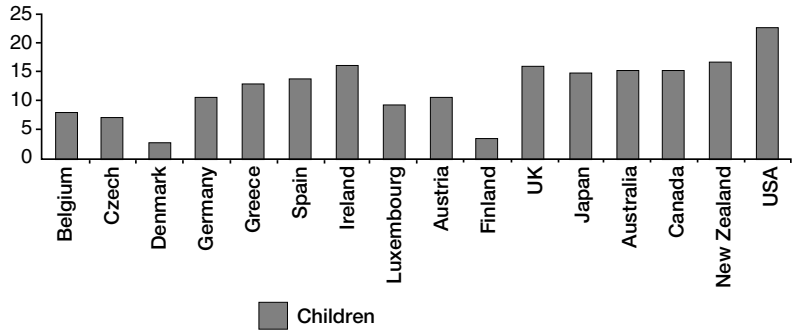
Table A2.1: Percentage of Persons Below 50 per cent of Median Income by Age, Living in Ireland Surveys 1994, 1997, 2000 and 2001

	1994	1997	2000	2001
	%	%	%	%
Children (aged under 18)	9.4	13.8	15.1	14.2
Adults aged 18-64	4.6	7.1	10.6	11.3
Adults aged 65 or more	2.8	2.6	12.0	18.2

Table A2.2: Percentage of Persons Below 70 per cent of Median Income by Age, Living in Ireland Surveys 1994, 1997, 1998, 2000 and 2001

	1994	1997	2000	2001
	%	%	%	%
Children (aged under 18)	36.4	32.2	32.4	31.4
Adults aged 18-64	21.3	23.8	21.8	23.3
Adults aged 65 or more	24.5	49.0	51.8	56.3

Figure A2.1: Percentage of Children Below 50 per cent of Median Income in OECD Countries, Around 2000



Source: UNICEF (2005), Figure 1, p. 4.

Supplementary Results for Chapter 3

Table A3.1: Number of Years Below 50 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

Years below threshold	Children	Working-age adults with children	Working-age adults without children	Adults aged 65+	All
	%	%	%	%	%
0	62.6	66.8	74.5	65.8	67.6
1	14.2	13.9	13.9	18.2	14.6
2	7.9	6.6	5.1	8.3	6.8
3	6.0	5.6	2.5	3.4	4.6
4	4.5	3.0	2.4	2.4	3.1
5	3.5	3.0	1.1	1.3	2.4
6	0.7	0.7	0.1	0.2	0.5
7	0.6	0.4	0.3	0.2	0.4
8	0.1	0.1	0.0	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0

Table A3.2: Number of Years Below 70 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

Years below threshold	Children	Working-age adults with children	Working-age adults without children	Adults aged 65+	All
	%	%	%	%	%
0	41.1	41.7	51.3	30.5	42.3
1	12.5	14.4	15.4	12.1	13.9
2	7.4	9.3	9.6	8.1	8.8
3	8.8	7.9	5.1	6.1	7.1
4	3.9	5.2	4.8	7.9	5.2
5	4.7	6.1	2.4	5.7	4.8
6	6.6	5.8	3.6	8.8	5.9
7	5.9	4.0	3.8	5.4	4.6
8	9.0	5.7	4.0	15.5	7.5
Total	100.0	100.0	100.0	100.0	100.0

Table A3.3: Income Poverty Persistence *vis-à-vis* 50 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

	Children	Working-age adults with children	Working-age adults without children	Adults aged 65+	All
	%	%	%	%	%
Persistent non-poor	62.6	66.8	74.5	65.8	67.6
Transient poor	19.3	18.2	18.0	23.7	19.2
Recurrent poor	8.1	7.0	3.1	5.7	6.1
Persistent poor	10.0	8.1	4.5	4.8	7.1
Total	100.0	100.0	100.0	100.0	100.0

Table A3.4: Income Poverty Persistence *vis-à-vis* 70 per cent of Median Income, Children Versus Working-Age Adults Versus Older People, 1994-2001

	Children	Working-age adults with children	Working-age adults without children	Adults aged 65+	All
	%	%	%	%	%
Persistent non-poor	41.1	41.7	51.3	30.5	42.3
Transient poor	17.4	18.9	23.4	17.0	19.4
Recurrent poor	10.6	12.0	6.0	8.1	9.6
Persistent poor	30.9	27.5	19.4	44.4	28.8
Total	100.0	100.0	100.0	100.0	100.0

Supplementary Results for Chapter 6

KEY TO COUNTRIES: DK, Denmark; NL, Netherlands; BE, Belgium; DE, Germany; FR, France; IRL, Ireland; UK, United Kingdom; IT, Italy; GR, Greece; ES, Spain; PT, Portugal

Figure A6.1: Poverty Profile for 50 per cent Median Income Poverty for Children Aged <18 By Country

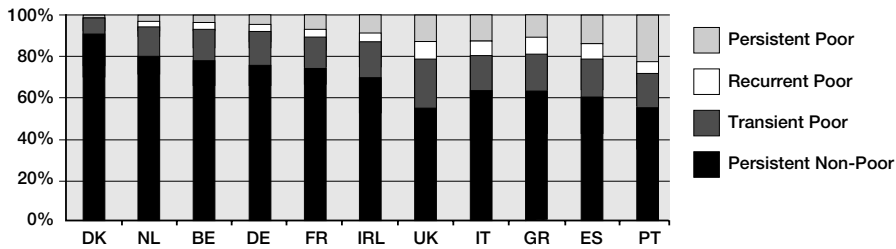


Figure A6.2: Poverty Profile for 70 per cent Median Income Poverty for Children

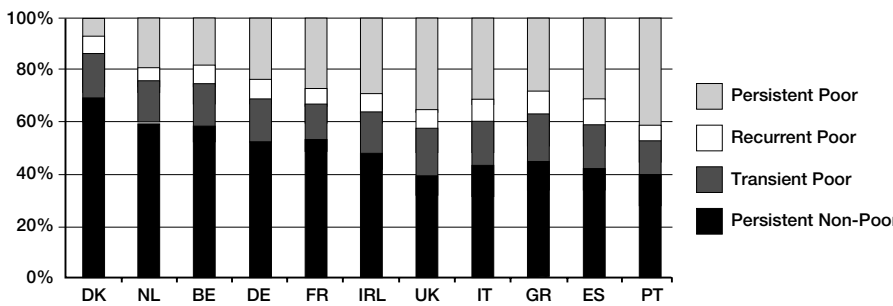


Table A6.1: Odds Ratio of Risk of Persistent Poverty (50 per cent of Median Income) for Children Relative to Other Income Groups

	Adults with children	Adults without children	Adults 65+
DK	1.4	0.3	0.1
NL	1.2	1.4	3.7
BE	0.9	0.7	0.3
DE	1.2	1.3	0.9
FR	1.1	1.6	0.8
IRL	1.5	2.3	1.4
UK	1.8	4.5	1.4
IT	0.9	1.6	2.1
GR	0.8	0.9	0.3
ES	1.2	2.8	3.2
PT	1.4	1.7	0.7

Table A6.2: Odds Ratio of Risk of Persistent Poverty (70 per cent of Median Income) for Children Relative to Other Income Groups

	Adults with children	Adults without children	Adults 65+
DK	0.9	0.4	0.1
NL	1.1	2.2	1.3
BE	1.0	1.2	0.4
DE	1.4	2.4	1.6
FR	1.1	1.9	1.0
IRL	1.3	2.0	0.5
UK	1.7	4.0	1.0
IT	0.9	1.7	1.3
GR	1.0	1.0	0.4
ES	1.1	2.3	1.2
PT	1.3	1.8	0.5

Table A6.3: Gross and Net Impact of Different Measures of Presence of Children By Country

	Measure of Impact of Children	Control for Other Factors?[1]	DK	NL	BE	FR	IRL	IT	GR	ES	PT	DE	UK
1	Being an Adult[2]	No	1.00	0.90	1.24	1.34	1.44	1.94	2.31	1.78	2.53	1.00	1.40
2	Being a Child[3]	No	1.00	1.67	1.71	2.35	2.80	3.32	2.99	3.35	4.45	2.25	3.79
3	Being an Adult[2]	Yes	1.00	0.67	1.18	1.00	1.00	1.24	1.77	1.00	1.38	1.00	1.00
4	Being a Child[3]	Yes	1.00	1.61	1.98	2.20	1.70	2.32	2.65	2.16	2.44	2.23	2.39
5	Having no Children in HH[2]	No	1.00	0.74	1.00	1.27	1.00	1.55	2.18	1.37	1.98	1.00	1.00
6	Having Less than 3 Children[4]	No	0.59	1.07	0.99	1.30	1.26	2.41	2.13	2.28	2.04	1.22	1.84
7	Having Three or More Children[5]	No	1.42	2.05	1.42	3.83	3.30	8.34	4.95	4.99	12.06	3.52	5.18
8	Having no Children in HH[2]	Yes	1.00	0.60	1.26	1.00	0.74	1.17	2.01	0.88	1.21	1.00	0.75
9	Having Less than 3 Children[4]	Yes	0.94	1.57	1.92	1.94	1.07	2.69	2.92	2.19	1.72	1.76	1.70
10	Having Three or More Children[5]	Yes	3.00	3.70	3.77	4.89	3.01	8.73	6.02	4.87	10.66	5.27	4.02
11	Youngest Person in HH 18+[2]	No	1.00	0.74	1.00	1.27	0.93	1.00	2.17	1.36	1.97	1.00	1.00
12	Youngest Person in HH 12-17[6]	No	0.66	1.09	1.12	1.60	1.35	1.84	2.56	2.22	2.06	1.07	1.32
13	Youngest Person in HH 5-11[7]	No	0.74	1.46	1.22	1.52	1.86	1.91	2.45	2.98	3.38	1.50	2.34
14	Youngest Person in HH <5[8]	No	0.70	1.19	1.08	2.00	2.15	1.73	2.32	2.55	3.20	1.80	3.15
15	Youngest Person in HH 18+[2]	Yes	1.00	0.59	1.23	1.00	0.72	1.14	1.95	0.85	1.16	1.00	0.73
16	Youngest Person in HH 12-17[6]	Yes	1.00	1.23	1.23	1.73	0.72	2.26	1.95	1.42	1.24	1.00	1.01
17	Youngest Person in HH 5-11[7]	Yes	1.51	2.25	1.85	2.23	1.71	3.19	2.95	2.77	2.80	2.49	2.11
18	Youngest Person in HH <5[8]	Yes	1.00	1.84	2.36	2.93	2.02	2.98	3.47	2.64	2.80	2.25	2.46

[1] Controlling for the sex, age, education, employment status and health status of the household reference person and the number of people employed in the household.

[2] This coefficient represents the odds for the main country term for all countries other than Denmark. Adults in Denmark are the model reference category.

[3] This coefficient represents the sum of the main country term, main term for being a child and the interaction of the two for all countries other than Denmark. For Denmark, the coefficient is the main term for being a child.

[4] This coefficient represents the sum of the main country term, main term for having less than three children in the household and the interaction of the two for all countries other than Denmark. For Denmark, the coefficient is the main term for having less than three children in the household.

[5] This coefficient represents the sum of the main country term, main term for having more than three children in the household and the interaction of the two for all countries other than Denmark. For Denmark, the coefficient is the main term for having more than three children in the household.

[6] This coefficient represents the sum of the main country term, main term for having a child aged 12 to 17 in the household and the interaction of the two for all countries other than Denmark. For Denmark, the coefficient is the main term for having a child aged 12 to 17 in the household.

[7] This coefficient represents the sum of the main country term, main term for having a child aged 5 to 11 in the household and the interaction of the two for all countries other than Denmark. For Denmark, the coefficient is the main term for having a child aged 5 to 11 in the household.

[8] This coefficient represents the sum of the main country term, main term for having a child aged less than 5 in the household and the interaction of the two for all countries other than Denmark. For Denmark, the coefficient is the main term for having a child aged less than 5 in the household.

Supplementary Results for Chapter 7

Table A7.1: Poverty Rates by Parental Education

	70 per cent median	Alternative consistent poverty
	Percentage poor	Percentage poor
Primary or less	26.6	10.8
Intermediate Certificate	17.9	7.5
Leaving Certificate	11.6	3.8
Third level	8.6	2.5

Table A7.2: Poverty Rates by Parental Social Class

	70 per cent median	Alternative consistent poverty
	Percentage poor	Percentage poor
Professional/managerial and higher non-manual	11.1	3.3
Self-employed and farmers	22.6	6.7
Lower non-manual, skilled and semi-skilled manual	20.0	8.5
Non-skilled manual	31.8	15.3

Table A7.3: Poverty Rates by Childhood Economic Circumstances (Difficulty in Making Ends Meet)

	70 per cent median	Alternative consistent poverty
	Percentage poor	Percentage poor
Great difficulty	34.8	18.9
Some difficulty	27.3	11.5
Little difficulty	15.2	4.6

Table A7.4: Current Poor Broken Down by Childhood Economic Circumstances (Difficulty in Making Ends Meet)

	70 per cent median	Alternative consistent poverty
	Percentage poor	Percentage poor
Great difficulty	22.2	29.9
Some difficulty	38.3	40.5
Little difficulty	39.0	29.7
Total	100.0	100.0

Table A7.5: Gross and Net Odds on an Individual from Primary Education Background, Compared to One from a Leaving Certificate or Higher Background, Experiencing Different Types of Poverty

	70 per cent median	Alternative consistent poverty
	Odds ratio	Odds ratio
Parental education alone:	3.35	4.48
Controlling for:		
Childhood economic circumstances	2.66	3.00
+ Education	1.64	1.86
+ Social class	1.21	1.38
+ Employment status	1.10	1.18

Table A7.6: Cumulative Influences on Risk of Being Poor at 60 per cent of Median Income

	(i)	(ii)	(iii)	(iv)	(v)
Parents' education					
No qualifications	3.537	2.734	1.587	1.192	1.064
Junior Certificate	2.154	1.988	1.614	1.330	1.243
Childhood circumstances					
Great difficulty		2.481	1.959	1.838	1.750
Some difficulty		1.815	1.664	1.642	1.582
Education					
Primary only			5.905	2.920	2.490
Junior Certificate			2.993	1.696	1.880
Leaving Certificate			2.032	1.498	1.722
Social class					
Self-employed and farming				3.846	7.091
Lower non-manual and skilled manual				3.660	2.573
Unskilled manual				7.956	5.139
Employment status					
Unemployed					8.688
Inactive					5.571
Constant	0.071	0.059	0.036	0.029	0.016
Reduction in log likelihood	143.90	242.80	449.39	734.16	1,274.42
Degrees of freedom	2	4	7	10	12
Nagelkerke R^2	0.049	0.067	0.122	0.195	0.324

Table A7.7: Cumulative Influences on Risk of Being Poor at 70 per cent of Median Income

	(i)	(ii)	(iii)	(iv)	(v)
Parents' education					
No qualifications	3.350	2.661	1.641	1.213	1.102
Junior Certificate	2.057	1.901	1.591	1.317	1.226
Childhood circumstances					
Great difficulty		2.158	1.717	1.588	1.454
Some difficulty		1.901	1.700	1.698	1.645
Education					
Primary			4.972	2.414	2.057
Junior			2.521	1.411	1.504
Leaving Cert			1.774	1.303	1.447
Social class					
Self-employed and farming				4.085	5.260
Skilled manual				3.417	2.735
Lower non-manual and unskilled manual				12.808	9.574
Employment status					
Unemployed					5.046
Inactive					6.844
Constant	0.103	0.087	0.580	0.058	0.030
Reduction in log likelihood	170.46	271.095	487.408	912.25	1,432.60
Degrees of freedom	2	4	7	10	12
Nagelkerke R^2	0.043	0.068	0.120	0.218	0.328

Table A7.8: Cumulative Influences on Risk of Being Poor with 70% Consistent Poverty Measure

	(i)	(ii)	(iii)	(iv)	(v)
Parents' education					
No qualifications	4.115	2.708	1.577	1.261	1.066
Junior Certificate	3.065	2.643	2.245	1.797	1.536
Childhood circumstances					
Great difficulty		3.599	2.669	2.523	2.482
Some difficulty		2.818	2.524	2.421	2.252
Education					
Primary only			3.868	1.612	1.286
Junior Certificate			1.974	0.954	1.019
Leaving Certificate or higher			0.856	0.565	0.624
Social class					
Self-employed and farming				2.239	2.615
Skilled manual				6.825	4.577
Unskilled manual				4.776	2.212
Employment status					
Unemployed					4.661
Inactive					14.812
Constant	0.014	0.010	0.009	0.006	0.003
Reduction in log likelihood	42.061	108.425	179.04	299.512	526.882
Degrees of freedom	2	4	7	10	12
Nagelkerke R^2	0.024	0.060	0.099	0.164	0.283

Table A7.9: Cumulative Influences on Risk of Being Poor with the Alternative 70 per cent Consistent Poverty Measure

	(i)	(ii)	(iii)	(iv)	(v)
Parents' education					
No qualifications	4.477	3.004	1.851	1.378	1.176
Junior Certificate	3.190	2.816	2.451	1.980	1.774
Childhood circumstances					
Great difficulty		3.821	2.917	2.697	2.567
Some difficulty		2.511	2.294	2.245	2.150
Education					
Primary only			3.510	1.351	1.134
Junior Certificate			1.811	0.832	0.913
Leaving Cert or higher			0.892	0.577	0.657
Social class					
Self-employed and farming				3.544	4.348
Lower non-manual and skilled manual				7.000	4.896
Unskilled manual				11.387	6.284
Employment status					
Unemployed					5.552
Inactive					11.710
Constant	0.025	0.018	0.017	0.011	0.006
Reduction in log likelihood	117.559	202.830	307.913	542.494	901.584
Degrees of freedom	2	4	4	10	12
Nagelkerke R^2	0.033	0.078	0.1118	0.204	0.329

Table A7.10: Gross and Net Odds on an Individual Whose Family Experienced Great Difficulty in Making Ends Meet During Childhood, Compared to One whose Family did not Experience Difficulty, Experiencing Different Types of Poverty

	70 per cent median	Alternative consistent poverty
	Odds Ratio	Odds Ratio
Childhood economic strain alone:	2.70	4.56
Controlling for:		
+ Education	1.82	2.86
+ Social class	1.60	2.63
+ Employment status	1.45	2.44

Table A7.11: Cumulative Risk of Experiencing Different Types of Poverty Measure

	70 per cent median	Alternative consistent poverty
	Percentage poor	Percentage poor
Primary education origins	26.6	16.9
+ Great difficulty in making ends meet	37.9	30.5
+ No qualifications	53.7	43.9
+ Unemployed in past year	70.8	58.6

Table A7.12: Cumulative Disadvantage Odds Ratios for Different Types of Poverty Measure

	70 per cent median	Alternative consistent poverty
	Odds Ratio	Odds Ratio
Primary education origins	3.35	4.47
+ Great difficulty in making ends meet	5.74	11.48
+ No qualifications	14.00	18.99
+ Unskilled manual	61.60	57.17
+ Unemployed in past year	216.25	251.91

Child poverty is one of the most critical issues facing public policy in Ireland and is also an issue at an international level. As well as the level of child poverty, the duration of child poverty is equally important because the longer the time spent in poverty, the worse the consequences. A key component of ending child poverty is thus to better understand the flows into and out of child poverty and to investigate the links between child poverty in one generation and adult poverty in another.

Day In, Day Out, Understanding the Dynamics of Child Poverty enhances our understanding of the dynamics of child poverty in Ireland. The study draws on longitudinal data over an eight-year time period (1994-2001) and equivalent data for EU countries. It investigates two distinct components of the longitudinal aspect of child poverty: how many years of poverty were experienced by children over time (the persistence of child poverty) and the length of the spells children spend in poverty (the duration of child poverty). This dynamic perspective captures the cumulative length of time that children spend in poverty and the key factors that lead to children staying in poverty over a long period of time. The study also looks at the childhood background of adults in poverty and the factors that impact on adult outcomes.

The findings of this study will contribute to the debate around the most effective and efficient policy responses to ending child poverty in Ireland. It is of relevance to policy makers, people working with children (service providers and non-governmental organisations) and researchers concerned with child poverty issues (including students and teachers).

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