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MULTIPLE  
DEPRIVATION AND  
MULTIPLE  
DISADVANTAGE IN  
IRELAND:  
AN ANALYSIS OF  
EU-SILC

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# EXECUTIVE SUMMARY

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## Understanding Multi- dimensionality

Researchers and policy makers now agree that in studying poverty and social exclusion we need to measure more than income. Sole reliance on people's income creates major difficulties not only in estimating the numbers poor but also in correctly identifying the types of individuals and households that are exposed to poverty. The Irish consistent poverty measure, which forms part of the National Action Plan for Social Inclusion (NAP inclusion) targets, is a step in this direction. It involves a relatively restricted form of multidimensional analysis in that it combines information on whether individuals are above or below 60 per cent of median income with whether or not they are above a threshold level of basic deprivation. At both European and national levels there has been an increasing demand to move away from concentrating solely on income towards a more broadly based multidimensional approach that encompasses a range of living conditions.

Although the value of such an approach has come to be widely accepted it has generally been implemented on a fairly *ad hoc* basis, rather than starting with a clear underlying rationale and following through its implications. This study provides both conceptual clarification and new methods of incorporating multidimensionality into empirical analysis of poverty. Statistical methods are applied to sets of cross-sectional items to identify groups of indicators that hang together in a way that allows us identify distinct dimensions of deprivation relating to, for example, low income; deprivation in relation to basic necessities; consumer goods; housing; health and neighbourhood environment. Having distinguished such dimensions, we then proceed to establish, for subsets of such dimensions the extent to which they overlap in that deprivation on one dimension aligns with deprivation on another. We can also calculate the number of households that display values ranging from a minimum of zero to a maximum of the number of dimensions in the subset. Finally, we can document the extent to which particular levels and patterns of deprivation can be predicted by taking into account individual and household characteristics.

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## Income Poverty and Consistent Poverty

Income poverty is conventionally measured as falling below a specified percentage of median income, for example 60 per cent (having adjustment income to take household size and composition into account). Consistent poverty, as measured in the current core indicator in the NAP inclusion, involves being below 60 per cent of

median income and experiencing enforced deprivation in relation to two or more items comprising an index of “basic deprivation”. The constituent items in this index relate to food; heating; clothes; furniture; and being able to afford to engage in family and social life. Using this measure involves a rather simple form of multidimensional analysis. Those who are both below a specified relative income threshold *and* experiencing enforced basic deprivation – marginalised on two dimensions rather than just one – are identified as consistently poor. The set of 11 items from the European Union Statistics on Income and Living Conditions (EU-SILC) that have recently been adopted as constituting basic deprivation components of the national consistent poverty measure now cover a broader range than heretofore. This set provides a more comprehensive coverage of exclusion from family and social life. This has little effect on the overall numbers consistently poor; with the level in both cases being close to 7 per cent. However, it does allow us to identify a group who display a profile that is much nearer to that which we would expect to observe for a group that we are satisfied to define as poor. This is true in relation to both the broad pattern of objective deprivation to which they are exposed, and their own feeling of difficulty in coping with the economic stress.

Living in consistent poverty is a powerful predictor of the likelihood that households will experience a range of economic pressures such as coping with unanticipated expenses; debt problems and arrears; housing costs; and general difficulty in making ends meet. Those defined as consistently poor are also seen to differ sharply from the rest of the population in terms of the full range of life-style deprivation items that are available including consumption items; housing; health and neighbourhood environment.

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### Levels of Multiple Deprivation

Our analysis of the full set of indicators identifies five distinct dimensions of deprivation, namely basic deprivation; consumption; housing; health; and neighbourhood/environment. Those who experience one form of deprivation are seen to be more likely to experience another. We find that less than 1 per cent of people are deprived on all five dimensions. Even if we adopt a less stringent definition of multiple deprivation and look at those who are deprived on at least three dimensions, only 8 per cent are found in that situation.

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### Economic Vulnerability

Up to this point we have concentrated on multidimensional patterns of deprivation occurring at a particular point in time. However, in addition to being concerned with multidimensionality, advocates of the social exclusion perspective have sought to distinguish it from the conventional income approach through its emphasis on dynamics – the manner in which processes unfold over time. Where appropriate longitudinal or panel data are available



those concerns can be addressed in a fairly straightforward fashion. Even in the absence of such data, increasing concern has been expressed that the focus should extend beyond a description of the current circumstances of individuals in order to get some sense of how they are likely to have fared in the past and what their future prospects might be. Such concerns have led to the emergence from a number of sources of a concern with what has been termed ‘vulnerability’. This involves a shift of focus from current deprivation to insecurity and exposure to risk and shock. The IMF (2003), the UN (2003) and the World Bank (2000) have developed a range of approaches to measuring vulnerability at the macro level. The World Bank (2000) sees vulnerability as reflecting both the risk of experiencing an episode of poverty over time but also a heightened probability of being exposed to a range of risks.

Developing appropriate measures of vulnerability at the individual, as opposed to the aggregate level, requires application of innovative statistical procedures. We begin by seeking to implement a relatively restricted notion of vulnerability. Starting with the income and deprivation elements that make up the consistent poverty measure we add an indicator relating to the extent to which households experience “difficulty in making ends meet”. We then ask to what extent we can identify a cluster of individuals who are characterised by a multidimensional profile relating to these three indicators that involves a heightened level of risk that contrasts sharply with the situation for the remainder of the population. The contrast we must stress is in terms of risk profiles rather than existing patterns of deprivation. To take an example from another area, it is similar to the situation where we are concerned not with whether an individual has been involved in a car accident in the current observation period but with their risk of being so involved in the future. In order to establish whether groups with such contrasting risk profiles can be established we use a statistical technique known as latent class analysis. Our analysis identifies two groups that are sharply distinguished by risk levels in relation to income poverty, subjective economic stress and, most particularly, exposure to basic deprivation. The economically vulnerable group constitutes 20 per cent of the population; a figure that is almost identical to the proportion below the 60 per cent median income poverty threshold. However, our detailed analysis reveals that the socio-demographic profiles of these groups are substantially different. So too are the broader deprivation profiles they exhibit and their reports of the range of ways in which they experience economic pressures. Overall, our analysis suggests that a focus on the economically vulnerable rather than the income poor makes more sense. It also has the advantage that it directs attention to policies aimed at preventing people being exposed to such multidimensional deprivation rather than helping them to exit from such circumstances when they have already suffered this fate. The economic vulnerability measure has the desirable property that the consistently poor, irrespective of whether one focuses on 60 per

cent or 70 per cent of median income, constitute a subset of the vulnerable.

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## Multiple Deprivation Vulnerability Profiles

We extend our analysis of vulnerability, or heightened risk, by asking whether it is possible to identify groups of individuals who are characterised by distinctive profiles in relation to the five distinct dimensions of deprivation that we have identified. These dimensions, representing groups of indicators that hang together, comprise basic deprivation (as incorporated in the consistent poverty measure); consumption; housing; health; and neighbourhood facilities. Our analysis again is not concerned with describing existing levels of multiple deprivation, which we already know to be extremely low. Instead we are concerned with vulnerability and risk.

Our analysis distinguishes four clusters of households characterised by contrasting vulnerability profiles. The first cluster, which accounts for 83 per cent of the population, is characterised by distinctively low levels of risk in relation to all five dimensions. This group has a negligible risk of being exposed to any of the forms of multiple deprivation that involve combinations of the five dimensions on which we have focused. Just less than 5 per cent of the population are found in a cluster that is distinguished by relatively high levels of risk in relation to *health and housing*. A third group, that we describe as having a distinctive level of risk in relation to *current life-style deprivation* comprises 6 per cent of the population and is characterised by high risk levels in relation to both the basic and consumption dimensions. Finally, those we label the *maximally deprived*, and who experience comparatively high risk levels in relation to all dimensions, make up 7 per cent of the population. The magnitude of these clusters relates not to their pattern of deprivation at a point of time, which will be affected by particular events and experiences that lead them to enter and exit specific forms of deprivation, but their elevated risk levels in relation to the set of deprivation elements comprising the cluster.

Those most likely to be at risk of housing and health deprivation are people who are farmers; unmarried; lack educational qualifications; and are local authority tenants; particularly in rural areas. Those most vulnerable to *current life-style deprivation* are people who are inactive in the labour market (excluding the retired); lone parents; those with less than a Leaving Certificate education; and rural local authority tenant. For *maximal* deprivation, labour market inactivity and illness or disability are powerful predictors, education is also a strong influence, and so is being an urban local authority tenant.

So over 80 per cent of the population experience a negligible risk of being multiply deprived even in relation to its more restricted forms. For the remainder of the population we observe a set of tiered levels of deprivation, with the numbers at risk of being exposed declining as the nature of the deprivation becomes more

multifaceted. At the most extreme, just over 5 per cent of the population are both income poor and experience a relatively heightened risk of exposure to deprivation on each of the five dimensions identified.

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### **Multiple Disadvantage and Multiple Deprivation**

Finally, we shift our attention to the ways in which objective socio-economic characteristics that constitute ‘risk factors’ combine for individuals and households, and the consequences of such overlapping disadvantages for different types of deprivation outcomes. As well as being in one of the groups targeted by the social welfare system, education and social class are found to be important determinants of both levels and patterns of deprivation. However, while the accumulation of socio-economic disadvantages is reflected in deprivation outcomes, the relationship between such disadvantage and deprivation outcomes is somewhat less powerful than might be imagined. Furthermore, the number of people simultaneously experiencing multiple disadvantages may be extremely modest. The degree of inequality in life chances involved in the patterns of multiple disadvantage and deprivation that we have observed is profound. However, both the levels and depth of such multiple deprivation are decidedly more modest than suggested by radical critics of the Irish experience of economic growth.

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### **Policy Implications**

The ways of capturing multidimensionality developed here, and the patterns found when applying them to Irish data, have major implications for how we think about policy and monitor progress in promoting social inclusion. In the first place, the need to move beyond income in identifying those most in need is reinforced; in seeking to do so, the value of the consistent poverty measure using a revised set of basic deprivation items – now incorporated into the National Action Plan for Social Inclusion – is underpinned. The consistently poor represent a distinctively deprived group, and clearly should be accorded a very high priority indeed in framing anti-poverty policy. However, policy cannot be directed solely at that group if it is to be successful. The other key group to whom attention must be paid is not those on low incomes who are characterised by neither basic deprivation nor multiple deprivation but those who are at risk of being so exposed. While most people are now insulated from vulnerability to economic exclusion, the one in five who are vulnerable encompass the consistently poor but represent an additional grouping that also needs to be at the forefront in framing strategy. Inability to sustain employment plays a central role in such vulnerability. It is also true though that at any point in time those in employment are a great deal more likely to experience vulnerability to economic exclusion than consistent poverty as such. The influence of factors such as home ownership, education and social class background reflect the structural nature of the disadvantages involved and the policies required to tackle them.

As well as addressing the problems of those exposed to consistent poverty, social policy must also seek to reduce the heightened levels of risk experience by the vulnerable and operate in a preventative manner so as to not only facilitate exits from consistent poverty but also provides a buffer against falling into that state.

The fact that multiple deprivation across the different dimensions of deprivation identified is relatively rare acts as a counter to the sometimes despairing tone of commentary focusing on a so-called ‘underclass’ comprehensively detached from the mainstream: the evidence does not suggest that this concept has significant ‘purchase’ in an Irish context, whatever about the USA. Rather, in addition to tracking and understanding consistent poverty and broader vulnerability, it will also be important to capture those experiencing exposure to, and heightened risk of, very particular types of deprivation – in terms of health and housing, for example – and address the factors which lead them into that situation. In research that is ongoing we will seek to understand how such exposure varies and develops across the life cycle.

# 1. UNDERSTANDING MULTIPLE DISADVANTAGE AND MULTIPLE DEPRIVATION

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## 1.1 Introduction

Both in teasing out what poverty means and in seeking to measure it, most of the emphasis traditionally has been on low income. However, this is changing: there is an increasing tendency to move away from a unidimensional focus on income towards incorporating multidimensionality, both in conceptualising poverty and social exclusion and when it comes to empirical investigation. To take one important example, the set of indicators adopted by the European Union (EU) at the 2001 Laeken Council to monitor social inclusion include measures of income poverty and income inequality, but also educational disadvantage, health inequalities, and unemployment and worklessness;<sup>1</sup> such a multi-dimensional approach has been adopted in many of the EU member states and other developed countries. A central role has also been assigned to multidimensionality in measuring progress in alleviating poverty in developing countries, as illustrated by the Millennium Development Goals now dominating the development agenda.

Although the value of a multidimensional approach to poverty and social exclusion is now becoming widely recognised, it is generally pursued in practice on a fairly *ad hoc* basis. Furthermore, the underlying rationale for adopting such an approach is often not spelt out and its implications followed through. This study aims to contribute both to conceptual clarity and to the way multidimensionality is incorporated into empirical analysis of poverty, in Ireland and in the EU more broadly.

We start with a broad-ranging discussion in this chapter of why and when a multidimensional approach might be helpful, and what it

<sup>1</sup> See Atkinson *et al.* (2002 and 2005).

might involve.<sup>2</sup> This brings out how non-monetary indicators obtained at micro level help to perform better than income on its own in identifying the poor, and also directly capture the multifaceted nature of poverty and exclusion. That means, in turn, that the prospects of understanding these phenomena and designing effective policy responses are improved. We then go on in subsequent chapters to address some central issues in the empirical investigation of multiple deprivation at micro level, using data for Ireland on a range of non-monetary indicators from the new EU-SILC. We set out the structure of the remainder of the study in detail at the end of this introductory chapter, but in summary it involves analysis of:

- how the available non-monetary indicators allow different dimensions of deprivation to be distinguished, and how one dimension – ‘basic’ deprivation – is best captured and combined with income to measure ‘consistent poverty’;
- how a broader group that is not necessarily experiencing such basic deprivation but is more exposed and vulnerable than others – that we label the “economically vulnerable” – can be identified, and who they are;
- how the five dimensions of deprivation identified in Chapter 2 allow us to describe the scale of multiple deprivation, and provide the basis for an analysis of the relationship between such deprivation, low income and consistent poverty;
- and finally, how various risk factors or disadvantages are related to each other and to the various outcome measures developed and employed in this study – in particular, how commonly they go together and represent an accumulation of disadvantages.

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## 1.2 The Case for Adopting a Multidimensional Approach

Before embarking on empirical analysis, we try to tease out the reasons why a multidimensional perspective on poverty and social exclusion might have value in the first place. It is becoming a commonplace that poverty and social exclusion are inherently multidimensional concepts, and that anti-poverty policy, therefore, needs to be equally multidimensional rather than “just” focusing on income and transfers. Proponents of a focus on social exclusion, for example, stress the need to go beyond low income because of the multidimensional nature of the mechanisms whereby individuals and groups are excluded (EU Commission, 1992), requiring the mobilisation not only of employment and social policy but also housing; education; health; leisure and culture.<sup>3</sup>

<sup>2</sup> This discussion draws on Nolan and Whelan (forthcoming).

<sup>3</sup> For a discussion of the consequences of EU-enlargement for the income poverty lines see Whelan and Maître (2007c).

In discussing multidimensionality a clear distinction needs to be maintained between *conceptualising*, *measuring*, *understanding* and *responding* to poverty. One can make a case for a multidimensional approach to each of these, but they are not the same case. They have different implications, and one does not simply follow from the other. For example, the fact that poverty may be best thought of as a multidimensional concept does not in itself mean that the poor can be identified only by using a multidimensional approach; nor does identifying the poor unidimensionally (via income, for example) imply that poverty can be understood only in that fashion or that policies should be directed towards that single dimension.

Starting at the level of conceptualisation, a strong case can be made for the notion that poverty and social exclusion are inherently multidimensional concepts. Most research now takes as point of departure that people are in poverty when "...their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities" (Townsend, 1979). Such a definition has also been adopted by the European Union and nationally by many countries.<sup>4</sup> It is echoed in the definition of poverty put forward by the influential National Research Council panel in the USA as insufficient resources for basic living needs, defined appropriately for the United States today (Citro and Michael, 1995). In Ireland the definition of poverty adopted through the National Anti-Poverty-Strategy (NAPs) historically and now the NAP inclusion is:

*People are living in poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them from having a standard of living which is regarded as acceptable by Irish society generally. As a result of inadequate income and other resources people may be excluded and marginalised from participating in activities, which are considered the norm for other people in society.*

The linkage between concept and measurement then has to be thought about carefully. However, in doing so, it is also important to distinguish two different aspects of measurement: identifying the poor/counting the number poor versus capturing what it means to be poor. In some circumstances, a single indicator might in fact be adequate to identify empirically those experiencing poverty or social exclusion in a particular society. Thus, it could be that household income, accurately measured, is sufficient to identify those who would be generally thought of as poor or socially excluded. Those below the appropriate income threshold might well be experiencing all sorts of other types of deprivation and exclusion – poverty is in that sense multifaceted. To document what being poor entailed, would require the use of appropriate indicators across various

<sup>4</sup> The EC Council adopted the following definition in the mid-1980s:

*The poor shall be taken to mean persons, families and groups of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member State in which they live.*

dimensions. However, the poor could be accurately identified via their income alone. This would be the case if income were indeed very strongly associated with those other dimensions of deprivation and exclusion. So the need for a multidimensional measurement approach in identifying the poor/excluded is an empirical matter. It is not something one can simply read off from the multidimensional nature of the concepts themselves.

In a similar vein, identifying the poor is only the first step in understanding the causes of poverty, and the measure employed does not determine the best approach to exploring those causes. One can think of circumstances where the mechanisms whereby individuals and groups are excluded are in fact straightforward – in a pure caste society, for example, where birth determines outcomes. In that case, a single dimension may well serve to both identify the poor and capture the key mechanism underlying their poverty. However, even if income were the key determinant of poverty and exclusion and sufficed to identify the poor it would still be the case that the factors affecting income at household level and its distribution at societal level are extremely complex. Even before we start thinking about aspects of poverty other than low income, there are many different channels into poverty and many mechanisms involved – most obviously the way the labour market, education and tax and transfer systems are structured. Poverty, irrespective of how it is measured, can only be understood by taking a variety of causal factors and channels into account. Focusing finally on policy, the way poverty is measured should not in itself imply a particular set of policy prescriptions to combat it, or a narrow versus broad approach to doing so. Measuring poverty via income does not in itself imply that the only way to tackle poverty is to directly target the incomes of the poor and try to raise them via social transfers. It could well be that such a policy would be ineffective and that a successful anti-poverty strategy aimed at raising incomes has to directly tackle low education, poor housing, regional development and so on. A multi-sectoral anti-poverty strategy involving “joined up government” can be justified on the basis of the complex and interlocking nature of the underlying causal mechanisms and structures, irrespective of the measurement approach employed.

We have emphasised the need to distinguish the arguments for:

- conceiving of poverty and social exclusion as about “more than money”,
- employing a multidimensional approach to measure poverty and social exclusion,
- where identifying the poor versus capturing the multifaceted nature of poverty also need to be distinguished,
- understanding the complex nature of the underlying processes, and
- framing a multi-sectoral policy response.



We now go on to consider the use of multidimensional indicators, at aggregate and then at micro level, bearing these distinctions in mind.

---

### 1.3 The Aggregation Issue

The most common way to use multidimensional indicators of poverty and social inclusion is to identify at country level some statistics relating to different dimensions or aspects and track how they evolve over time and/or vary across countries. Taking the indicators of social inclusion which the EU has adopted as an example, these are each produced and presented as an aggregate for the country in question – the percentage below relative income thresholds; the long-term unemployment rate; the proportion of early school-leavers etc. in each country at a particular time. The phenomena they aim to capture could be entirely distinct or intimately related to each other, but the indicators are stand alone and have nothing to say about these inter-relationships. One can look to see whether there are obvious patterns across the indicators – whether high unemployment normally goes with a high proportion below relative income thresholds, for example – but that is supplementary to the main emphasis, which is simply to see what direction of change each is displaying or whether one country does better or worse than another on each indicator.

An issue that then pervades the use of such multidimensional indicators is how to assess whether things are getting better or worse overall in a given country, or whether one country is doing better than another in some summary sense. Different indicators may well move in different directions for a particular country over time, and in cross-sectional comparisons countries may well not be ranked the same way by different indicators. Do we simply assume that the different dimensions are non-comparable and indicators relating to them should be presented separately, or do we try to aggregate or arrive at an overall assessment across dimensions, and if so how is this to be done?

There has been a longstanding practice in the quality of life literature of summarising across dimensions to produce a single quality of life index.<sup>5</sup> In a development context the UNDP's Human Development Index (HDI), constructed from indicators of life expectancy, education and standard of living, has received a great deal of attention and a HDI variant designed for developed countries is also now produced. On the other hand, the Laeken indicators are very deliberately presented individually with no attempt to produce an overall "score" across the dimensions – indeed, Atkinson *et al* (2002) argue that this should be avoided precisely because the whole thrust of the European social agenda is to emphasise the multidimensionality of social disadvantage.

<sup>5</sup> See Hagerty *et al.* (2001) for a review.

Proponents of summary measures of national performance aggregating across dimensions argue that they serve the twin functions of summarising the overall picture and facilitating communication to a wide audience.<sup>6</sup> However, the arguments against are also well illustrated by the on-going controversy around the use of the HDI. The general problem is how to reach agreement not only on the best indicators to use but also on the weight to give to different ones. If a society has a relatively low level of average income but above-average life expectancy, to use perhaps the most obvious but striking example, how would we place a value on one indicator versus the other in constructing a summary measure? Such indices, in consequence, are always arbitrary in fundamental and unavoidable ways.

However, combining what are already aggregate indicators to produce a summary measure is to be distinguished from aggregation at the level of the individual. At individual level, linking information across dimensions allows us to see, for example, where poverty, poor housing, neighbourhood problems and ill-health are found together – which not only allows the extent of “multiple deprivation” to be captured, but is also invaluable in enabling us to investigate the causal factors involved. It is on this individual-level application of a multidimensional approach that we concentrate in this report.

The simplest summary measure of the individual’s well-being taking different dimensions into account is the number of dimensions in which they are deprived.<sup>7</sup> Atkinson (2003) refers to the “counting approach”, and brings out how this can be seen within the same welfare theoretic framework and also highlights the role of assumptions made regarding the shape of the social welfare function and the weighting of different attributes or dimensions. Since there are likely to be differing views about the best form for the deprivation measure, the dominance approach – familiar from comparisons of income inequality – seeks to identify circumstances under which, one can, nonetheless, say that “...multidimensional deprivation in country A is lower than in country B”.<sup>8</sup>

Before considering how best to combine individual-level information across dimensions, however, the logically prior issues relate to why dimensions of poverty or deprivation need to be distinguished in the first place, and what is the best way of doing so. As we tried to clarify in the previous section, the rationale for a multidimensional approach and its implications depend on whether one is focused on conceptualising, measuring, understanding or responding to poverty and social exclusion. In the next section we hone in on the measurement of poverty at individual/household

<sup>6</sup> See for example, Micklewright (2001).

<sup>7</sup> See Vranken (2002).

<sup>8</sup> See also Brandolini and D’Alessio (1998).

level, and on why – despite economists’ predilection for relying on income – a multidimensional approach might be preferable.

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#### 1.4 Measuring Poverty: What is Wrong with a Unidimensional Approach?

As we have seen, poverty, as generally understood in advanced societies, has two core elements: it is about inability to participate, due to inadequate resources. Most quantitative research on poverty in such societies in fact employs a unidimensional approach to distinguish the poor: it uses income. Many ways of establishing an income cut-off are employed, including by reference to budget standards, expenditure patterns, or social security support rates. The most common practice in Western Europe in recent years has been to rely on relative income lines, with thresholds such as 40 per cent, 50 per cent, 60 per cent or 70 per cent of median or mean income being used.<sup>9</sup>

The broad rationale is that those falling more than a certain ‘distance’ below average income are unlikely to be able to participate fully in the life of the community. However, it has been recognised for some time (Ringen, 1987; 1988) that low income may be an unreliable indicator of poverty in this sense, failing in practice to identify those who are unable to participate in their societies due to lack of resources. This has been demonstrated in a variety of studies of different industrialised countries employing non-monetary indicators of deprivation.<sup>10</sup> Such indicators are based on survey questions asking people whether they can afford items such as a car, a television or a washing machine; or whether they can do certain things such as have a substantial meal regularly; heat their home adequately; go on holiday; or have friends in for a social occasion. The studies using them generally show that a significant proportion of those below income poverty thresholds do not display (relatively) high deprivation scores in terms of such non-monetary indicators, whereas some households above the income lines do. This finding is confirmed by our own analyses of data from the European Community Household Panel survey (ECHP) which allows a harmonised approach to be taken across countries (Whelan *et al.*, 2001; 2004). There is a general tendency for the overlap problem to be greatest in the more affluent Northern European countries where current income seems to provide a particularly poor indicator of permanent income or command over resources.

It is not our aim to describe these findings and the specific indicators employed in detail here, but it is worth teasing out why

<sup>9</sup> See for example, Forster and Pearson (2002) and Eurostat (2000).

<sup>10</sup> These include Townsend (1979); Mack and Lansley (1985); Gordon *et al.* (1995); Gordon *et al.* (2000); and Bradshaw and Finch (2001) with British data. Mayer and Jencks (1989) for the USA. Callan, Nolan and Whelan (1993) and Nolan and Whelan (1996) with Irish data. Muffels (1993) and Muffels and Dirven (1998) with Dutch data, Hallerod (1996) for Sweden; Kangas and Ritakallio (1998) for Finland; Bohnke and Delhey (1999) for Germany; Bray (2001) for Australia; and Jensen *et al.* (2002) and Krishnan *et al.* (2002) for New Zealand.

one might actually expect current income to have serious limitations in capturing poverty. Both the theoretical concepts of resources versus needs, and the realities of their empirical measurement, are relevant here.<sup>11</sup> A household's standard of living will depend crucially on its command over resources and its needs compared with others in the same society. While disposable cash income is a key element in the resources available to a household, it is by no means the only one. Savings accumulated in the past add to the capacity to consume now, and servicing accumulated debt reduces it. Wealth, as well as current income, is central to command over resources and would ideally be measured together with income and in as much depth (though this is not easy to do). Some households experiencing a period of low income may be able to buffer the impact on consumption by drawing down savings or running up debts. While others – notably households that have had a lengthy period on low income, or indeed have never experienced anything else – may have no such savings and have exhausted their (limited) borrowing capacity. So both the dynamics of how income has changed over time, and the associated level of wealth, may vary widely across households that are on a similar level of income just at present.

The level of past investment in consumer durables also influences the extent to which resources must be devoted to such expenditure now. The most substantial investment made by many households is in owner-occupied housing, and the flow of services from this investment – the imputed rent – should in principle be counted among available resources but very often is not. Non-cash income – in the form of goods and services provided directly by the State, notably health care, education and housing – may also comprise a major resource for households. Cash income itself may fluctuate from year to year, so that current income is an imperfect indicator of long-term or “permanent” income. Since consumption cannot always be fully smoothed over time and households take time to adjust to income “shocks”, shorter-term income is still important but needs to be set in the context of the way income has evolved over time.

Turning to needs, these also differ across households, in a manner that is difficult to capture adequately at the conceptual much less empirical level. Most obviously, differences in household size and composition, in terms of numbers of adults and children, affect the living standards a particular level of income will support. It is customary to seek to take this into account by dividing household income by the number of “equivalent adults” in the household, but the equivalence scales employed may or may not satisfactorily achieve this objective. Households may also vary in a variety of other ways that affect the demands on their income, such as the ages

<sup>11</sup> See the discussions in for example Atkinson *et al.* (2002) and Mayer (1993).

of the adults and children and their health status. Capturing the implications of chronic disability for needs is particularly difficult. Work-related expenses such as transport and childcare may also affect the net income actually available to support living standards and avoidance of deprivation. Finally, geographical variation in prices may mean that the purchasing power of a given income varies across households depending on their location.

Needs are not the only thing that may differ across households at similar levels of income and affect their standard of living. Although difficult to pin down empirically, it is likely that people also differ in their capacity to manage their resources effectively. This is something that fits uneasily within the standard analytical framework employed in economic analysis, where it is assumed that people allocate the resources available to them effectively to maximise their utility. In fact, though, casual observation and the limited research carried out on for example how people make investment decisions suggests that some people are better than others at managing their money to produce desired outcomes. The implication is that some households at a particular level of income (and wealth) may be able to avoid deprivation or reach minimum acceptable levels of consumption, while others at the same income and wealth levels will not do so, because some manage the resources available to them better than others. An extreme example of such a phenomenon is where someone has an addiction – to drugs, alcohol or gambling – which absorbs most of their income, leaving them (and others in their household) deprived in other areas. While variations in ability to manage resources are presumably to be found throughout the income distribution, their impact on reaching minimum acceptable levels of consumption and avoiding deprivation is what is directly relevant here.

Turning to measurement, income is not measured comprehensively and accurately in the data sources generally available for this type of analysis. Household surveys face (intentional or unintentional) mis-reporting of income. They also find it particularly difficult to adequately capture income from self-employment, from home production, from capital, and from the imputed rent attributable to homeowners. One would be particularly concerned about the reliability of very low incomes observed in surveys – particularly in countries with what are thought to be effective social safety-nets – but other incomes may also be mis-measured to an unknown extent. Bound *et al.* (2001), and other studies show that measurement error in surveys is particularly high for self-employment income, with transfer payments also showing more error than employee earnings.)

These conceptual and measurement issues all arise within a standard economic framework, unlike arguments that this framework itself misses important features of the phenomenon of poverty. We have argued that a distinction needs to be made, in measuring poverty, between identifying the poor and capturing the

multifaceted nature of poverty – and that while a multidimensional approach is required for the latter, a single indicator such as income could in certain circumstances suffice for the former. But what we are asserting now is that the evidence for a range of countries strongly suggests that those circumstances do not in fact prevail; it is hazardous to draw strong conclusions about whether a household is poor or socially excluded from current income alone (Whelan *et al.*, 2001).

There is then a range of possible responses to such difficulties. One option is clearly to work to improve the depth and accuracy of measures of resources and needs – and our understanding of how they relate to one another – notably by using expenditure as an indicator of longer-term resources; using panel data to capture income over a longer period; measuring stocks of assets and liabilities as well as income flows; incorporating non-cash benefits into “income”; and exploring ways of capturing needs associated with for example disability. All these are important areas to pursue, and progress is being made on various fronts in different countries. However, obtaining a full picture of command over resources and how it relates to needs remain problematic. This is illustrated by the results of panel analysis of the relationship between deprivation and persistent poverty using data from the European Community Household Panel. Such analysis shows that deprivation levels do indeed rise as the persistence of low income increases (Whelan *et al.*, 2002; 2003). However, where persistent poverty is defined as having experienced a consecutive three-year spell in poverty in the course of a five-year window of observation and a comparable deprivation indicator is constructed the extent of mismatch remains substantial (Fourage and Layte, 2005, Whelan *et al.*, 2004).

A complementary rather than an alternative route is to use non-monetary indicators to measure levels of deprivation directly, and see whether these can assist in improving the measurement of poverty. Reflecting on the conceptual and measurement problems we have described in relation to reliance on income certainly suggests that non-monetary indicators could have significant potential in identifying the poor. Where income is currently genuinely low but this is unusual for the household and savings can be depleted, for example, or where income has been misreported as low, non-monetary indicators might correctly show a higher standard of living than income. Where the household benefits from non-cash support from the State, this should enable them to attain a higher standard of living and this should again be reflected in lower levels of deprivation, *ceteris paribus*. Where a household faces particular needs that act as a drain on income, due to disability for example, then once again deprivation levels as reflected in non-monetary indicators should be higher than others on the same income. Where prices are considerably higher in one part of the country than another, lower levels of deprivation for those in the

low-cost regions should again in principle be reflected in appropriate non-monetary indicators.

The problem though is how to be sure one is capturing genuine differences in levels of deprivation rather than variation in choices and tastes. Deprivation itself conceptually relates to being denied the opportunity to have or to do something; the difficulty is in empirically inferring a constrained opportunity set from what people do not have or do. It is this concern about the role choice may play in the outcomes observed that underpins the reluctance of many economists to rely on non-monetary deprivation indicators in measuring poverty.<sup>12</sup> The survey questions on which the indicators are based often go beyond simple absence of an item or activity to try to hone in on deprivation that is “enforced” by lack of money – for example by a follow-up question on whether those without an item did not want or could not afford it – though an element of subjectivity inevitably remains.

Despite this concern, the evidence suggests that such non-monetary indicators contain valuable information, and when combined with information on financial constraints, do help in identifying those who are experiencing exclusion due to lack of resources. This evidence takes a number of forms. One is that those on low income and displaying particular types of deprivation generally have much higher levels of self-assessed economic pressures than those on low income alone. Another is that “low income plus deprivation” is generally more strongly related to factors that are widely believed to increase the risk of poverty in many countries – such as unemployment; disability; lone parenthood; divorce; – than low income alone. Finally, those identified as “low income plus deprived” using a specific set of indicators generally also display higher levels of other forms of deprivation than those on low income alone (Nolan and Whelan, 1996; Halleröd, 1996). As well as assisting in identifying the poor, non-monetary indicators obtained in household surveys can be very valuable in the second element of the measurement process, namely capturing the multifaceted nature of poverty and social exclusion.

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## 1.5 Implementing a Multidimensional Approach

The extent of multiple deprivation, and how people come to be exposed to it, has been a central concern of research and debate on social exclusion.<sup>13</sup> Indeed, while the term social exclusion is itself used to mean different things, it commonly seems to be taken to denote multiply deprived groups, trapped in cycles of fatalism, concentrated in the worst housing estates and at risk of transmitting

<sup>12</sup> See also recent discussions relating to the distinction between absence and enforced absence McKay (2004) and Berthoud *et al.* (2006).

<sup>13</sup> See for example Paugam (1996a and b) on the process leading from employment precarity to social exclusion.

their fates across generations.<sup>14</sup> However, the volume of research actually documenting the nature and extent of multiple deprivation has been rather modest. Much of it has focused on the relationship between unemployment on social isolation, which actually seems rather weaker than commonly assumed.<sup>15</sup> Studies of multiple deprivation have also tended to focus on demonstrating a significant level of correlation between different types of deprivation among the population as a whole, but as we shall see this does not in itself guarantee that any substantial proportion of the population is exposed to multiple deprivation as it would generally be understood.

In the remainder of this study we aim to show how a reasonably broad set of non-monetary indicators for a representative sample of the Irish population allow the extent and nature of multiple deprivation to be investigated fruitfully, using some novel analytical approaches. At the outset, it is useful to make a distinction between multiple deprivation and what we will term ‘multiple disadvantage’. Multiple deprivation we take to mean combinations of adverse outcomes across various dimensions – for example, a household affected by unemployment and ill-health living in poor housing in a run-down neighbourhood is experiencing multiple deprivation. Multiple disadvantage, on the other hand, we will use to refer to combinations of socio-economic and socio-demographic attributes that may expose people to deprivation – risk factors, as it were. (A particular attribute – unemployment or ill-health, for example – may of course be an outcome in one context but a risk factor in another, depending on what one is studying.) This study is then aimed at capturing multiple deprivation and assessing its relationship to such disadvantages or risk factors using micro-data for Ireland.

We do so by means of the following analytic strategy. Chapter 2 starts by taking the range of non-monetary indicators available in the EU-SILC data source for Ireland and analysing the dimensionality of deprivation – in other words, how the different indicators cluster into groups, reflecting distinct aspects of deprivation. All five of the dimensions identified in this fashion are taken up in subsequent chapters, but Chapter 2 continues by concentrating on the sub-set capturing what has previously been labelled ‘basic’ deprivation. This, when combined with low income, serves to measure those who are ‘consistently poor’, the measure of poverty developed in previous ESRI research and incorporated into the targets set in the government’s official anti-poverty strategy. The chapter examines in particular how adapting the specific items used to capture basic deprivation in the light of societal changes and new information can improve this measure of consistent poverty.

While the consistent poverty measure (particularly adapted in this way) identifies a group that merits the highest priority in framing policy, it is also very valuable to be able to identify a broader group

<sup>14</sup> See Kleinman (2000).

<sup>15</sup> See Paugam, (1996, a and b), Russell and Paugam (2000) and Gallie *et al.* (2003).



that is not necessarily experiencing such basic deprivation but is more exposed and vulnerable than others. Chapter 3 thus focuses on how we can capture a distinctive risk profile that we label “economic vulnerability”, which involves a particular form of multiple deprivation that may be very important. A novel application involving a statistical technique known as latent class analysis is employed for this purpose. Having identified and characterised the vulnerable group, it then proceeds to examine the relationship between such vulnerability, low income and consistent poverty.

Chapter 4 steps back from consistent poverty and vulnerability to analyse multiple deprivation, incorporating the five dimensions of deprivation identified in Chapter 2. Using those dimensions it describes the scale of multiple deprivation, and the relationship between such deprivation, low income and consistent poverty.

Taking this descriptive analysis as point of departure, Chapter 5 pursues a more formal statistical approach. This allows us to estimate overall levels of multiple deprivation more precisely, to identify distinct groups that have different risk profiles in relation to levels and patterns of deprivation, and to explore how risk levels and profiles of multiple deprivation are related to the measures of poverty and vulnerability as measured in earlier chapters.

In all, then, Chapters 2-5 employ a variety of measures designed to identify groups of particular interest to policymakers:

- (1) A revised version of the consistent poverty measure;
- (2) A broader measure of economic vulnerability; and
- (3) Measures of multiple deprivation.

In each case, the measures will be validated by reference to external information, in a fashion to be described in detail as we proceed.

In Chapter 6 the focus shifts to risk factors – disadvantages – and explores the relationship between these factors and the various outcome measures developed and employed in this study. In particular, it asks whether these risk factors frequently go together, or is an accumulation of disadvantages and consequent accumulation of deprivation actually quite a rare phenomenon?

Finally, Chapter 7 brings the key findings and messages from the study together and considers their implications.

# 2. MEASURING CONSISTENT POVERTY WITH EU-SILC 2004 DATA

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## 2.1 Introduction

This chapter is concerned with the measurement of poverty, and in particular with the ‘consistent poverty’ measure developed and employed extensively in previous research at the Economic and Social Research Institute (ESRI). The definition of poverty enshrined in the Irish National Anti-Poverty Strategy, and also widely employed in academic research, depicts it as exclusion from the life of one’s society because of a lack of resources. In measuring and monitoring the evolution of poverty in Ireland over recent years, research at the ESRI has made extensive use not only of household income but also of non-monetary indicators of deprivation.<sup>16</sup> Households falling below relative income thresholds and also reporting what has been termed “basic deprivation”, as captured by a specific set of eight non-monetary indicators, have been identified as “consistently poor” (Callan *et al.*, 1993; Nolan and Whelan, 1996). This approach has attracted a good deal of international attention, with several in-depth national poverty studies employing a combined income poverty and deprivation method and Austria following Ireland in the use of a “consistent poverty” measure for official national reporting.<sup>17</sup> The aim of this chapter is to use Irish data from the EU-SILC survey carried out by the CSO in 2004 to re-examine this consistent poverty measure in the light of changing circumstances and new information, to see whether it can be improved.

<sup>16</sup> Direct measurement of deprivation has also become common elsewhere; recent examples relating to Britain, New Zealand and the USA include McKay and Collard (2003), Perry (2002) and Short (2005).

<sup>17</sup> Specific studies include Lollivier and Verger (1997) for France; Perez-Mayo (2004) for Spain; Bradshaw and Finch (2001), Gordon *et al.* (2000) for Britain; and Förster (2005) for a range of European countries.

In the Irish case the precise manner in which basic deprivation and consistent poverty are measured, in terms of the specific non-monetary indicators used for that purpose, was initially established using data for 1987 and then 1994, and has been re-examined in several studies since then using more up-to-date information. However, over the past decade Ireland has experienced unprecedented economic growth, accompanied by profound change in standards of living, points of reference and the broader societal context. Important issues arise as to how has this affected the extent and nature of poverty and whether the original consistent poverty measure is still adequate for the purposes of answering such questions.<sup>18</sup> Criticisms of the original basic deprivation index focused particularly on the narrow range of deprivation indicators incorporated. Some saw it as being appropriate to a more frugal era and implicitly accepting an absolutist view of poverty. After a period of unprecedented growth and with the recent availability of data from the first wave of the Irish component of the European Union Statistics on Income and Living Conditions (EU-SILC) the time would seem ripe for evaluation.

In Maître *et al.* (2006) we carried out the first re-assessment of the consistent poverty measure with data from the new EU-SILC, but at that point we only had data from the 2003 survey, which had only half the sample size of the first full wave conducted in 2004. An exploration of the relationship between consistent poverty and other measures relating to economic vulnerability and multiple deprivation constitutes a crucial part of the present study, so we start by seeing if the conclusions of our initial assessment hold up when data from EU-SILC 2004 are employed. We first describe the data, in particular the range of non-monetary deprivation indicators available in this new Irish survey. Section 2.3 then examines how these indicators cluster together into different groupings to reflect different dimensions of deprivation. Section 2.4 concentrates on one grouping, for basic deprivation, and examines how the indicators available can be used to revise the measure previously employed for this purpose. Section 2.5 goes on to assess the implications of using this revised basic deprivation index, together with low income, to measure consistent poverty, and Section 2.6 summarises the findings of the chapter, most importantly that this revised measure does a good job in capturing exclusion due to lack of resources.

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## 2.2 EU-SILC 2004

In Ireland the information required under the EU-SILC framework is being obtained via a new survey conducted by the Central Statistics Office (CSO) each year. This was initiated in 2003, with interviews carried out only on a 6 months period from June to December 2003 that resulted in a small sample of 3,090 households and 8,101 individuals; the survey was then carried out throughout

<sup>18</sup> See Honohan and Walsh (2002) and Blanchard (2002).

2004, and again throughout 2005, with first results published in early 2005 (CSO, 2005). The EU-SILC survey is a voluntary survey of private households. In 2004 the total completed sample size is of 5,477 households and 14,272 individuals. A two-stage sample design with eight population density stratum groups with random selection of sample and substitute households within blocks and the application of appropriate weight was employed (CSO, 2005).

The components of gross household income are employee income, cash and non-cash; employer's social insurance contributions; other direct income including pension from private pension plans;<sup>19</sup> interest dividends etc. and social transfers. Disposable income is gross income less employer's social insurance contributions; regular inter-household cash transfer paid; tax on income and social insurance contributions. The equivalence scale employed attributes a weight of 1 to the first adult, 0.66 to each subsequent adult (aged 14+ years living in the household) and 0.33 to each child aged less than 14 years. Disposable household income is divided by equivalised household size to produce equivalised income, which is then applied to each member of the household. The at-risk-of poverty-rate is the share of persons with an equivalised income below a given percentage of the national median income.

The Irish component of EU-SILC includes a range of questions relating to non-monetary indicators of deprivation. Here we draw on the full set of deprivation indicators in the Irish survey; which is a good deal more comprehensive than that common across the countries participating in EU-SILC. The questions posed cover a wide spectrum of items ranging from possession of consumer durables; quality of housing and neighbourhood environment; aspects of participation in social life; and health status. The format of the questions posed to respondents varies across topics.

For the first set of items that we consider, respondents were asked if (1) the household possessed/availed of the items (2) did not possess/avail of because they could not afford it or (3) did not possess/avail for other reason. The items are:

- Paying for a week's annual holiday away from home in the last 12 months.
- Eating meat chicken or fish (or vegetarian equivalent) every second day, if you wanted to.
- Having a roast joint (or equivalent) once a week.
- Buying new, rather than secondhand clothes.
- A warm waterproof overcoat for each household member.
- Two pairs of strong shoes for each household member.
- Replacing any worn-out furniture.
- Keeping your home adequately warm.
- Having friends or family for a drink or meal at least once a month.

<sup>19</sup> Not included in EU definition.

- Buying presents for family/friends at least once a year.

A similar format was employed in relation to the set of consumer items set out below.

A satellite dish	A video recorder	A stereo
A CD player	A camcorder	A home computer
A washing machine	A clothes dryer	A dish washer
A vacuum cleaner	A fridge	A deep freezer
A microwave	A deep fat fryer	A liquidiser
A food processor	A telephone (fixed line)	

A second set of items concerns the household dwelling and it was simply asked if the household possessed some specific amenities. Given the widespread availability of these items, we assume that their absence is due to inability to afford them.

- Bath or shower.
- Internal toilet.
- Central heating.
- Hot water.

A third set of items relate to the quality and the environment of the dwelling. Respondents were asked if their dwelling suffered any of the problems listed below:

- Leaking roof, damp walls/ceilings/floors/foundations, rot in doors, window frames.
- Rooms too dark, light problems.
- Noise from neighbours or from the street.
- Pollution, grime or other environmental problems.
- Crime, violence or vandalism in the area.

The questions described to this point concern households and household members. The final set of items we consider were addressed to individuals. For this set of items, the absence and affordability elements were incorporated in one question (and two part questions for the last two items). The items are as follows:

- Going without heating during the last 12 months through lack of money.
- Having a morning, afternoon or evening out in the last fortnight for entertainment.
- A car.

The last set of items relate to the health of the household reference person. The specific questions were as follows:

- Evaluation of general health. Five response options were offered. We considered respondents as having health problems when they answered from “fair” to “very bad”.
- If they suffered from any chronic illness or condition. A simple “yes” or “no” was offered to the respondents.
- If they have been limited in usual activities for at least the last 6 months because of a health problem. Three options were offered and those answering “yes very limited” and “limited” are considered as also having health problems.

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## 2.3 The Dimensionality of Deprivation

The analysis reported here refers to all persons in the EU-SILC. Where household characteristics are involved these have been attributed to each individual. Where more than one person answered a question, the response of the household reference person (HRP) has been used – the HRP being the one responsible for the household accommodation (where this responsibility was shared the oldest of those persons was chosen). In the analysis that follows we make use of forty-two indicators of life-style deprivation from EU-SILC described in the previous section. Our first step in the investigation of the dimensionality of deprivation for the EU-SILC set of items. This involves establishing the extent to which specific groups of items form distinct clusters rather than representing a homogeneous set of indicators. Where the former can be established this provides evidence that rather different sorts of socio-demographic factors are influencing the different dimensions. The statistical technique we use to conduct this analysis is known as factor analysis. The particular form of factor analysis that we employ allows the dimensions to be correlated rather than constraining them to be independent.<sup>20</sup>

Our intention is to use the results of the factor analysis as an aid to the development of appropriate indices. We do not utilise differences in the magnitude of factor loadings across items to attribute different weights to them. However, as can be seen from Table 2.1, our analysis does allow us to identify five distinct dimensions of deprivation that we label basic deprivation; consumption deprivation; housing facilities; neighbourhood environment; and health status. For ease of interpretation, with one exception, we show the loadings only for the dimension on which the highest loading is observed. The item for which we make an exception is that relating to being able to afford a holiday away from home at least once a year. This item has its highest loading of 0.50 on the basic dimension, but has an almost equally high loading on the consumption deprivation dimension. In deciding which dimension we should allocate this item to we have taken into account that the level of deprivation on the holiday item is substantially higher than for any of the remaining items in the basic set. Over one in four respondents say they cannot afford an annual holiday, almost twice the level reported on any of the other basic items. As a consequence, the inclusion of the holiday item would unduly influence basic deprivation and consistent poverty levels, so we decided to include it in the consumption deprivation set.

<sup>20</sup> This is known as an oblique as opposed to an orthogonal rotation.

The basic deprivation index comprises eleven items.<sup>21</sup> The items include those relating to food; clothes; adequate heating; new furniture; being able to afford an afternoon or evening out; being able to entertain family and friends. These items we argue capture types of deprivation whose enforced experience involves exclusion from a minimally acceptable way of life. The loading of the items on this factor are relatively homogeneous with the highest loading of 0.71 relating to being able to afford new clothes and a roast joint or equivalent and the lowest of 0.55 being in connection with going without heating. In what follows, in distinguishing this index from the basic deprivation index incorporated in the original national Anti-Poverty Strategy consistent poverty measure, we shall refer to the new measures as the broad indicator of basic deprivation and the original measure as the narrow indicator of basic deprivation.

The second dimension relating to consumption deprivation comprises nineteen items that refer to a range of consumer durables such as a telephone; CD player; dishwasher; and PC. Deprivation of these items is considered to constitute a significantly less serious form of exclusion than the basic items. The loading of the items on this dimension is once again relatively homogeneous. The full range runs from 0.34 to 0.69 but thirteen of the nineteen items are found in the range 0.56 to 0.69.<sup>22</sup>

The third dimension comprises four items relating to rather basic housing facilities. A bath or shower and an indoor toilet and hot water weight particularly strongly on this dimension with loadings of between 0.79 and 0.83, while central heating loads a good deal less strongly.

The fourth dimension relates to the quality of the neighbourhood environment. Here, the strongest loading item at 0.68 relates to noise with pollution and crime, violence and vandalism loading slightly lower. Rather weaker weightings are found for housing deteriorating elements such as leaking roof and damp and the rooms being too dark.

The final dimension relates to the health status of the household reference person. Each of the three indicators relating to this dimension namely self-assessed health status, indication of the existence of chronic illness or disability and restricted mobility load extremely high on this dimension. The loadings cover the extremely narrow range from 0.82 to 0.86.

<sup>21</sup> Confusingly, Eurostat has recently had some similar analyses carried out in which this dimension is labelled as “economic strain” – a term we have used in previous publications to refer to self-assessed difficulty making ends meet. Given the widespread use of the ‘basic deprivation’ label in Ireland we continue to employ it here.

<sup>22</sup> We would expect that appropriately expanding this set of items would be likely to lead to the identification of separate dimensions relating to housing deterioration and neighbourhood environment. However, given the limited number of items available it appears that the former items are serving as proxies for neighbourhood quality.

The fact that the various items are separable into distinct dimensions means that some types of deprivation cluster together but others do not – for example, a neighbourhood with crime or vandalism is often noisy and polluted, but the presence or absence of such characteristics does not tell us much about the likelihood of observing basic deprivation. Households with health and housing problems are not necessarily located in problem neighbourhoods. Many households lacking particular consumption items do not experience basic deprivation, although we expect that most of those exposed to the latter will experience the former. Our particular emphasis on basic deprivation arises because we consider it captures best the form of generalised deprivation that fits into a consistent poverty measure.

**Table 2.1: Factor Analysis Oblique Rotation Solution for EU-SILC Life-style Deprivation Items**

	Deprivation Dimensions				
	Basic	Consumption	Housing Facilities	Neighbourhood Environment	Health
Going without Heating	0.553				
Shoes	0.702				
Roast joint or equivalent	0.707				
Meals with meat, fish or chicken	0.697				
New rather than second-clothes	0.707				
Warm water proof overcoat	0.691				
Household Adequately Warm	0.661				
New not Second-Hand Furniture	0.621				
Family for drink or meal	0.659				
Able to Afford Afternoon or	0.594				
Presents for family/friends	0.567				
Holiday away from Home	0.495	0.492			
Telephone		0.497			
PC		0.671			
Satellite Dish		0.582			
Video		0.558			
Stereo		0.645			
CD		0.633			
Camcorder		0.672			
Clothes Dryer		0.584			
Dish Washer		0.682			
Vacuum Cleaner		0.444			
Fridge with Separate Freezer		0.467			
Freezer		0.612			
Micro Wave		0.564			
Deep Fat Fryer		0.596			
Liquidiser		0.663			
Food Processor		0.690			
Car		0.347			
Washing Machine		0.341			
Bath or Shower			0.833		
Toilet			0.785		
Central Heating			0.524		
Hot water			0.812		
Leaking roof & Damp				0.379	
Rooms too Dark				0.324	
Pollution				0.566	
Crime, Violence, Vandalism				0.579	
Noise				0.676	
Assessment of Health					0.822
Chronic Illness					0.839
Mobility restriction					0.864



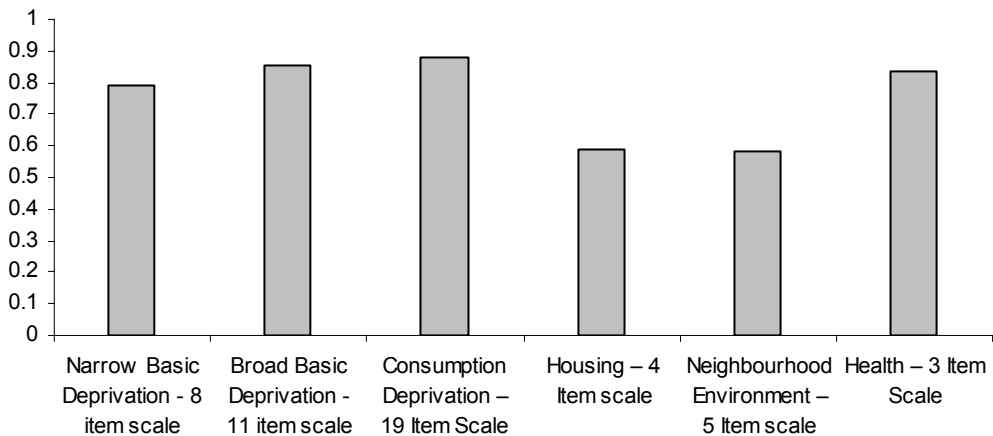
Given the relative homogeneity of the item weightings on the observed dimensions, we feel that very little will be lost by using simple additive indices that have the virtue of transparency.<sup>23</sup> In adopting this approach, we need to confirm the extent to which we can be confident that the component items are tapping the same underlying construct. An index of such reliability is provided by Cronbach's alpha, which is based on the average inter-item correlation between the component items.<sup>24</sup> In Figure 2.1 we report the value of this coefficient for two different versions of the basic deprivation index and for the remaining dimensions. The first basic deprivation reliability coefficient relates to the set of eight items (see Table 2.2 for description) that constituted the basic deprivation measure historically incorporated in the National Anti-Poverty Strategy (1997-2002) consistent poverty measure. The second relates to the eleven items identified in the factor analysis reported earlier which in combination with falling below 60 per cent of median income constitutes the consistent poverty measure currently adopted in the NAP inclusion.<sup>25</sup> The reliability levels for these indices are respectively 0.79 and 0.86 with the new index being clearly superior to the old one in terms of reliability. These items are intended to serve as equally reliable indicators across sub-groups of the population. Confirmation that this assumption is justified is provided by the fact that the coefficients for urban and rural sub-groups are, respectively, 0.86 and 0.85. The level of reliability for those aged sixty-five years or more is slightly higher than for the younger respondents but still achieves a very satisfactory level of 0.75.

The nineteen-item consumption deprivation index has a particularly high level of reliability with an alpha coefficient of 0.88. Given the much smaller number of indicators, it is not surprising that the reliability coefficients for the housing and neighbourhood/environment indices are significantly lower at 0.58.

<sup>23</sup> For the basic dimension, corrected item-total correlations are all in the range running from 0.49 to 0.62.

<sup>24</sup> Reliability levels show modest variation across age groups. Latent trait analysis offers an alternative to the procedures we have adopted. However, where an index fulfilling reliability and validity requirements has been constructed using standard index building procedures, the observed results appear to be effectively identical to those produced by a weighted index using either "subjective" or "objective" weighting methods.

<sup>25</sup> See National Action Plan for Social Inclusion 2007-2016.

**Figure 2.1: Reliability Levels for Deprivation Dimensions**

## 2.4 Comparing Alternative Deprivation Indices

It was clear from the outset that, as living standards rose, the specific items employed in the consistent poverty measure would need to be revised at some point, in light of changing notions of what is minimally adequate. The intention was never to measure poverty in an “absolute” manner but, as Bradshaw (2001) has put it, in a “less relative way”. In focusing on a set of basic deprivation items it was not considered to be a problem that respondents reporting an enforced lack of such items were in possession of apparently non-essential items.<sup>26</sup> If we were to impose such a condition then households possessing DVD’s; videos or stereos; or indeed spending money on cigarettes or alcohol; could never be deemed to be poor. We do not have up to date information on what people *say* are necessities, though that tends to move over time in line with actual levels of possession or participation. However, all that is required in order to implement the consistent poverty approach is that we succeed in identifying a group of individuals experiencing enforced absence of items that, given our conceptualisation of poverty, we judge to be appropriate indicators. Of course our choice of items must be subject to empirical validation.

The eleven items included in the broad basic dimension index are set out in Table 2.2. These include six items from the original basic set – shown in the first part of the table – referring to deprivation in relation to food, clothing and heating. The five new items are shown in the second part of the table; these focus on adequate participation in family and social life. They include being able to afford to entertain family and friends; buy presents once a year; have an

<sup>26</sup> See McKay (2004) for a discussion of the interpretation of respondents’ reports of lacking items because they cannot afford them.

afternoon or evening out; keep the house warm; and buy new furniture. Two items included in the original basic deprivation set are now dropped, as shown in the final part of Table 2.2. The item relating to “being unable to afford a substantial meal because of a lack of money” is omitted because the factor analysis shows that its relationship to the underlying dimension we are trying to tap is a good deal weaker than for the other items. We have also chosen to omit the item relating to “going into debt to meet ordinary living expenses” because it is rather general and unspecific and open to different interpretations.<sup>27</sup> As McKay and Collard (2003) note, debt is a rather emotive term that can be used to describe two quite different situations. The first relates to consumer credit while the second refers to financial difficulties involving arrears in payments.

**Table 2.2: Broad Basic Deprivation Items**

<b>Items Retained from Original Basic Set</b>
Two pairs of strong shoes
A warm waterproof coat
Buy new rather than second-hand clothes
Eat meals with meat, chicken, fish (or vegetarian equivalent) every second day
Have a roast joint (or its equivalent) once a week
Go without heating during the last 12 months through lack of money
<b>Items Now Added to Basic Set</b>
Keep the home adequately warm
Buy presents for family or friends at least once a year
Replace any worn out furniture
Have family or friends for a drink or meal once a month
Have a morning, afternoon or evening out in the last fortnight, for entertainment
<b>Items Now Dropped from Original Basic Set</b>
Going without a substantial meal due to lack of money
Going into debt to meet ordinary living expenses

In constructing the original Irish consistent poverty measure, which incorporated the basic deprivation index, it was argued that, given the extremes of deprivation captured by such items, the enforced absence of even one item together with income poverty was sufficient to fulfil the conditions for consistent poverty. In developing the revised basic deprivation index, one of our objectives was to develop a measure of consistent poverty where the poverty rate was not dependent on any one item. The choice of a deprivation threshold has been a source of considerable debate. Following Townsend’s (1979) original work a number of authors have sought to identify an income threshold below which such deprivation escalates.<sup>28</sup> However, given the well-established difficulties in reliably measuring income at the lower end of the distribution, we have not

<sup>27</sup> An alternative approach would be to use a number of items to capture the kind of debt experiences appropriate for inclusion in a basic deprivation index (see McKay and Collard, 2004).

<sup>28</sup> See in particular Gordon (2002).

chosen to pursue such a course.<sup>29</sup> Instead we think it is necessary to accept that there can be no absolute validation of any particular threshold. It is of course possible to consider the consequences of a particular choice for our understanding of both levels of poverty and the socio-economic characteristics associated with such poverty. Fortunately, in the case of consistent poverty measures involving both income and deprivation components, the choice of an appropriate deprivation threshold has considerably less consequence than that relating to the appropriate relative income threshold has for relative income poverty levels.<sup>30</sup>

In Table 2.3 we demonstrate how the EU-SILC 11 index with a threshold of 2+ discriminates among those below the 60 per cent and 70 per cent relative income poverty lines in terms of the economic pressures that they are experiencing.<sup>31</sup> About 80 per cent of those above the deprivation threshold report inability to meet unanticipated expenses, compared to only about 20 per cent of those below the threshold. Three-quarters of those above the threshold report difficulty in making ends meet compared to one-quarter of those below it. The rest of the table shows that those above the basic deprivation threshold are also much more likely to report that housing expenses are a great burden, and also report being in arrears arising from routine expenses. The results for the 60 per cent threshold are strikingly similar. In order to be able to compare the level of association across items that have different distributions we calculate for each item an index known as an odds ratio. The notion of odds is one that is familiar to those acquainted with gambling terminology. Thus instead of saying that a team has a 20 per cent chance of winning we can express this by saying that the odds against them winning are 4:1 or four to one against. Similarly, rather than indicating that a team has a 20 per cent chance of winning we can say that the odds are 1:4 or four to one on. An odds ratio is calculated simply by dividing the odds for one group by that relating to another. Thus in Table 2.3 the odds on reporting inability to cope with unexpected expenses for those below the 60 per cent income poverty line and below the broad basic deprivation threshold is (21.6/78.4) or 0.28. For those below the income line and above the deprivation threshold the corresponding odd is (83.2/16.8) or 4.95. The odds ratio is then simply (4.95/0.28) or 18. This compares with an odds ratio for these groups of 7.5 in relation to experiencing difficulty in making ends meet and 7.1 with regard to experiencing arrears. Thus while all three measures are related to basic deprivation the strength of the association is much stronger for inability to cope with unanticipated expenses. The value of the odds ratio is that

<sup>29</sup> Such difficulties are exacerbated in the Irish case by the continued importance of the agriculture sector.

<sup>30</sup> See Whelan (2007) for further details.

<sup>31</sup> Results relating to the 60 per cent line are almost identical.

comparisons involving it are unaffected by the absolute number experiencing each of the economic pressures. A similar pattern of differentials is observed at the 70 per cent line.

**Table 2.3: Economic Pressure by Income Poverty Lines and the Broader Basic Deprivation 11 Item Index**

Broader Basic Deprivation Item Index	Below 60% Median	Below 70% Median
	% Reporting Inability to Cope with Unexpected Expenses	
Below Basic Deprivation Threshold	21.6	19.1
Above Basic Deprivation Threshold	83.2	80.4
Odds Ratios	18.0	17.4
	% Experiencing Great Difficulty or Difficulty in Making Ends Meet	
Below Basic Deprivation Threshold	30.7	28.8
Above Basic Deprivation Threshold	76.9	76.4
Odds Ratios	7.5	8.1
	% For whom Housing Expenses are a Great Burden	
Below Basic Deprivation Threshold	22.7	21.2
Above Basic Deprivation Threshold	63.6	61.1
Odds Ratios	6.0	5.8
	% Experiencing Arrears	
Below Basic Deprivation Threshold	10.5	8.1
Above Basic Deprivation Threshold	45.3	41.5
Odds Ratios	7.1	8.1

In other words, information about whether an individual is above or below the threshold is just as powerful in discriminating between those exposed to subjective economic pressures at the lower income cut-off as at the higher one. At both income lines the sharpest discrimination by levels of deprivation arises in relation to inability to cope with unexpected expenses where the odds ratio reaches 20:1 at the 60 per cent line and 17:1 at the 70 per cent line. In no other case does it rise much above 8:1 or fall below 6:1. However, it is true that for the item relating to ability to cope with unanticipated expenses, which we expect to be least likely to be affected by consumption goals or adaptive preferences, the odds ratio is slightly higher at the 60 per cent line. Overall, evidence shows that those above the economic threshold and located between the 60 per cent and 70 per cent income lines are not significantly different from those below the 60 per cent line. Further support for the validity of the basic deprivation index is provided by the fact that its greatest discriminatory power is found in relation to the unanticipated expenses item.

## 2.5 Consistent Poverty

While we will proceed to combine income and deprivation measures because in essence “income is not enough” to capture control over resources and living standards, we wish to establish that each of our basic deprivation indicators is associated with income poverty. Ideally, we would like variation in the magnitude of such associations to be relatively modest. The extent to which these conditions are fulfilled is set out in Table 2.4 in columns (1) and (2) for the 60 per cent median income line. In columns (3) to (5) we show the odds ratios relating to risk of being deprived for the

income poor versus the non-poor for the 50 per cent, 60 per cent and 70 per cent income lines.

Focusing first on columns (1) and (2), we find that in every case, there is a positive association between deprivation and being below the 60 per cent income line. The number of the non-income-poor deprived remains relatively stable across items, with 4 per cent or less being deprived for eight of the eleven items compared to 7 per cent to 10 per cent on the remaining three items. These latter items comprise being able to afford an afternoon or evening out, being able to replace worn-out furniture and having family or friends over for a drink or a meal. The pattern for those above the 60 per cent threshold is also relatively homogenous. Deprivation for eight of the eleven items varies from 7 per cent to 14 per cent. For an afternoon or evening out, entertaining family and friends and replacing furniture it rises to approximately 25 per cent in each case.

**Table 2.4: Basic Deprivation Indicators by Income Poverty Median Income Lines**

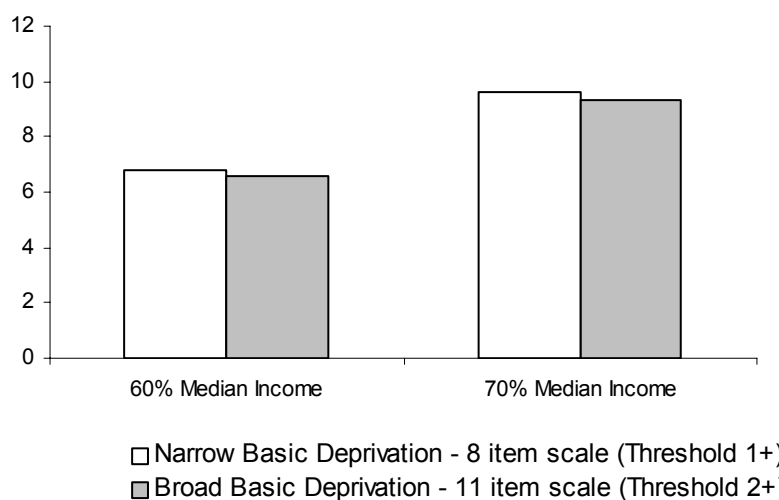
	<b>Non-Poor at 60% of Median Income</b>	<b>Poor at 60% of Median Income</b>	<b>Odds Ratios 50% of Median income</b>	<b>Odds ratios 60% of Median Income</b>	<b>Odds ratios 70% of Median Income</b>
	<b>% Deprived</b>	<b>% Deprived</b>			
Going without heating	4.0	12.1	2.8	3.3	4.1
Shoes	2.4	9.5	3.7	4.2	6.6
Roast joint or equivalent	2.8	11.2	4.2	4.3	5.2
Meals with meat, fish or chicken	2.2	9.7	4.0	4.7	5.1
New rather than second-hand clothes	3.8	14.2	4.2	4.3	6.0
Warm waterproof overcoat	1.8	6.7	3.8	3.9	6.2
Household adequately warm	2.2	7.9	3.1	3.8	5.1
Replace worn-out furniture	10.0	27.8	3.0	3.5	4.2
Family for drink or meal	7.8	25.7	3.7	4.1	5.4
Able to afford afternoon or evening out	6.5	25.3	5.1	4.9	5.1
Presents for family/friends	2.8	11.6	4.3	4.5	7.0

In columns (3) to (5) of Table 2.4 we show odds ratios for each item for all three poverty lines. This indicator allows us to assess the strength of the relationship and to compare the magnitude of association across both items and income lines. At the 60 per cent line the value of the odds ratios is found in the narrow range running from 3.3 to 4.9. Thus, the basic deprivation items are significantly and fairly uniformly associated with income poverty. However, the limitations of income measures are shown in columns (3) to (5) where we compare odds ratios for the 70 per cent, 60 per cent and 50 per cent lines. As we move from the 70 per cent line to the 50 per cent line the number of persons income poor falls from 29 per cent to 11 per cent. However, there is no systematic tendency for the association between income poverty and deprivation to increase. In fact, ten of the eleven odds ratios at the 50 per cent lines are smaller than the corresponding figures at the 70 per cent line. Defining the income threshold more stringently contributes nothing to our ability to discriminate those experiencing deprivation on the

basic items from the remainder of the population. Once again the limitations of focusing on those on extremely low incomes if one wishes to identify those exposed to basic deprivation is revealed.

In Figure 2.2 we set out the consistent poverty rates for the narrow 8 items measure with a threshold of at least one item, and for the broad 11 items measure with one of two or more items. At the 60 per cent line the former gives a consistent poverty rate of 6.8 per cent and the latter one of 6.6 per cent. At the 70 per cent line the corresponding figures are 9.3 per cent and 9.6 per cent. It may seem paradoxical that having enlarged our set of basic deprivation items, we have identified fewer people as being below the consistent poverty lines. This comes about first because the threshold now relates to an enforced lack of two or more items rather than one or more. This also contributes to the fact that our estimates of poverty are largely unaffected by the exclusion of any one of the eleven items.<sup>32</sup> Second, a significant number are no longer defined as consistently poor due to our exclusion of the item relating to incurring debts in connection with routine expenses. The debt item tended to act as something of a catchall item in the case of the narrow items index and consistent poverty levels are a good deal lower when it is removed. We have now deliberately avoided items that unduly influence the consistent poverty rate. The consequence of these decisions is that while 18.8 per cent of persons are found above the narrow basic deprivation indicator threshold, only 14.1 per cent are found above the broad basic deprivation threshold.

**Figure 2.2: Consistent Poverty Rates at 60 Per Cent and 70 Per Cent of Median Income for Persons Employing Alternative Basic Deprivation Indices, EU-SILC 2004**



<sup>32</sup> Consistent poverty rates for the full set of ten item scales range from 8.3 per cent to 9.6 per cent.

Table 2.5 shows how the consistently poor using the broader measure are differentiated from the non-poor on each of the 11 items. We focus first on the 70 per cent line. At this threshold the non-poor display deprivation levels of 3 per cent or less for eight of the items. For the same items the deprivation levels for the consistently poor range between approximately one in five and two in five. For the remaining items the levels of deprivation for the non-poor range between 5 per cent to 8 per cent, while for the consistently poor they go from 57 per cent to 71 per cent. The consistent poverty measure at 70 per cent of median income thus identifies two groups who are quite distinctive in their basic deprivation profiles. The results for the 60 per cent group are remarkably similar. In every case the deprivation level for the non-poor is marginally higher at the 60 per cent line. For the non-poor the difference between the two thresholds are extremely modest. It is clear that those above the deprivation threshold and located between the 60 per cent and 70 per cent line are almost equally as likely to be deprived on each of the eleven items as their counterparts below the 60 per cent line.

In the final column of Table 2.5 we show the corresponding odds ratios for the 70 per cent line. The value of the odds ratios ranges from a low of 18:1 for the item relating to “going without heating” to a high of 39:1 for “entertaining family and friends”. However, nine of the eleven values are found in the range running from 20:1 to 30:1. The number consistently poor at the 70 per cent threshold is only marginally smaller than that below 50 per cent of median income, however, the values of the odds ratios for the former are between four to eleven times higher than those relating to the latter; with the median value of 25.9 being seven times higher than the corresponding value at the 50 per cent income poverty line. Turning our attention to the 60 per cent line the odds ratio are in every case lower. They range from 13.3:1 for going without heating to 28.5 for having family for a drink or a meal. Thus while those below the 60 per cent line experience marginally higher deprivation levels the discrimination between poor and non-poor is actually greater at the 70 per cent line.

The five deprivation indicators that we have added to the original set turn out to have above average discriminatory power with four of them having odds ratio above 20 at both the 60 per cent line and the 70 per cent line. In contrast the items we have excluded exhibit values that are well below the average for the new 11-item set. The outcome is that overall the new deprivation index is more closely associated with household income than the original index.<sup>33</sup>

<sup>33</sup> For details and analysis see Whelan (forthcoming).



**Table 2.5: Broader Basic Deprivation Items by Revised Consistent Poverty Measure**

	60%			70%		
	Not Poor %	Consistently Poor %	Odds Ratios	Not Poor %	Consistently Poor %	Odds Ratios
Go without heating	3.6	33.2	13.3	2.7	33.1	17.7
Shoes	2.1	27.4	16.7	1.3	28.2	29.9
Roast joint or equivalent	2.5	32.5	18.8	1.7	30.9	25.2
Meals with meat, fish or chicken	2.0	28.2	19.0	1.4	25.5	23.7
New second-hand clothes	3.5	39.0	17.6	2.3	39.2	26.8
Warm overcoat	1.6	19.5	14.7	0.9	20.5	28.0
House Adequately Warm	1.9	22.8	15.1	1.3	22.6	21.7
Replace Furniture	9.3	72.5	25.7	7.6	70.6	29.4
Family for drink or meal	7.2	68.9	28.5	5.4	68.7	38.8
Afternoon or Evening Out	6.6	60.8	21.9	5.3	56.7	23.3
Presents for family/friends	2.5	32.8	18.8	1.6	32.9	30.1

## 2.6 Conclusions

The aim of this chapter has been to use data from the 2004 EU-SILC survey for Ireland to examine how the available non-monetary deprivation indicators cluster together into distinct dimensions, and how best to measure one of these dimensions – basic deprivation – and combine it with low income to capture consistent poverty.

Our analysis identified five distinct dimensions of deprivation. We then opted for an 11-item index to serve as the basic deprivation component of a revised measure of consistent poverty. This set of items covers a broader range than the original basic deprivation set and provides a more comprehensive coverage of exclusion from family and social life. It is important that a national social indicator should enjoy broad legitimacy and the revised set of items seems more appropriate today than the earlier basic set, which appeared to reflect a more frugal era.

Given the range and type of items included in the new basic deprivation index, we proposed that a threshold level of two on that index – together with low income – is appropriate to capturing consistent poverty. The analysis that we have reported confirms this view. The revised basic deprivation index displays a high level of internal consistency and no one item unduly influences the level of consistent poverty. The sharply contrasting profiles in relation to each of the basic deprivation items observed for the consistently poor versus all others provides considerable reassurance that our procedures allow us to capture the type of group which we wish to designate as poor. The contrasts in relation to new items that have been added to the index are substantially sharper than in the case of the items from the original index that have been deleted.

The accumulated evidence strongly supports the view that the consistent poverty measure incorporating the broad basic deprivation index with a threshold of 2+ successfully identifies those exposed to generalised deprivation arising from lack of resources in

a manner consistent with their use as a target in Ireland's National Action Plan for Social Inclusion.

While those identified as consistently poor are clearly a priority for anti-poverty policy, it is also important in considering policy to be able to broaden the focus to include those who may not be experiencing consistent poverty at present but are particularly vulnerable to it, and also to study other aspects of deprivation going beyond the basic items. These are topics we go on to address in subsequent chapters.

# 3. ECONOMIC VULNERABILITY, INCOME POVERTY AND CONSISTENT POVERTY

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## 3.1 Introduction

In this chapter we shift focus from concentration on those experiencing exclusion to a broader consideration of vulnerability and socio-economic cleavages. To put our investigation of these broader issues in context, it is undisputed that Ireland over the past decade has experienced an unprecedented surge in economic growth, bringing levels of average income to among the highest in the world.<sup>34</sup> However, the benefits of this economic ‘miracle’ have been hotly disputed, with some pointing to increased marginalisation and polarisation. To see whether this is a valid characterisation, one needs to extend the focus of analysis beyond the consistently poor to see how a broader group towards the bottom of the socio-economic hierarchy has fared.

The predominant sociological view has been that the Irish experience of globalisation has fuelled economic inequality. An uninterrupted strategy of increasing integration into the global economy over the past four decades and the consequent opening up of labour, goods and capital markets are claimed to have led to increased poverty levels and left a broad stratum of the population vulnerable and insecure.<sup>35</sup> Kirby (2006), one of the leading proponents of this view, treats the Irish case as an example of the general tendency for globalisation to create increased vulnerability. The argument is linked to the case made by such as Giddens (1999) and Beck (1992) that not only have the risks to which we are exposed become more unpredictable but the institutional arrangements of the welfare state that served to buffer us against

<sup>34</sup> See Blanchard (2002) and Honohan and Walsh (2002).

<sup>35</sup> The A T Kearney/Foreign Policy index of globalisation ranked Ireland first between 2002-2004.

such risks have been eroded.<sup>36</sup> From this perspective, the benefits of the ‘Celtic Tiger’ are largely illusory and a focus on conventional economic indicators conceals a picture of increased inequality, erosion of employment security and marginalisation.<sup>37</sup> The fact that welfare payments lagged significantly behind the very rapid rise in incomes from work and property is seen to be more important than the fact that they increased a good deal more rapidly than consumer prices and that real incomes and living standards were improving throughout the distribution.<sup>38</sup> Kirby (2002) concludes that levels of income inequality have increased with higher levels of economic growth and the overall upgrading of Ireland’s class structure masks a persistent and deepening problem of marginalisation and blocked mobility.<sup>39</sup>

While this theme of polarisation during a time of plenty has been prominent in accounts of the ‘Celtic Tiger’, we will show that the available evidence suggests that the consequences of polarisation change have been more complex.<sup>40</sup> Proponents of the polarisation amid plenty rely disproportionately on indicators of income poverty framed in purely relative terms. While consistent poverty has declined sharply over the last decade, relative income poverty rates actually increased.<sup>41</sup> We have discussed elsewhere the limitations of relative income poverty measures taken on their own,<sup>42</sup> and the fact that they are particularly problematic in precisely the conditions of exceptional growth seen in Ireland in recent years. The fact that Eurostat reports that in 2003 Ireland had a substantially higher proportion of the population falling below the 60 per cent of median income threshold than Latvia should alert us to the need to take more than relative income poverty indicators into account in assessing economic well-being.<sup>43</sup> In this chapter we, therefore, seek to empirically measure economic vulnerability, a key theme in recent debates, and by seeing how it relates to relative income poverty and consistent poverty shed some new light on the nature of key socio-economic cleavages. Section 3.2 describes and presents the measure of vulnerability. Sections 3.3 and 3.4 examine its relationship to income poverty and consistent poverty respectively. In Section 3.5 the socio-economic profile of the vulnerable group is examined, and Section 3.6 summarises the conclusions.

<sup>36</sup>In fact as Brady *et al.* (2005) shows the evidence that globalisation has had any significant impact on the welfare state is extremely sparse. See also Goldthorpe (2002) in relation to the impact of social class.

<sup>37</sup> See Allen (2000), O’Hearn, (2000 and 2003), Kirby (2002).

<sup>38</sup> For a detailed discussion of such trends see Nolan and Smeeding (2005).

<sup>39</sup> See Kirby (2002, p. 60 and pp. 172-173). However, see Whelan and Layte (2006) for a discussion of trends in social mobility.

<sup>40</sup> Our discussion of these issues draws on Whelan and Maître (2007a).

<sup>41</sup> See Layte *et al.* (2004) for a discussion relating to the varying interpretations.

<sup>42</sup> Perry (2002); Bradshaw (2002); Whelan *et al.* (2004); and Förster (2005).

<sup>43</sup> See Eurostat (2005a) and Fahey *et al.* (2005).

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### 3.2 Latent Class Analysis of Economic Vulnerability

As De Haan (1998, p. 15), observes, notions of vulnerability are closely associated with the social exclusion perspective. Following Chambers (1989, p. 1), we can define vulnerability as not necessarily involving current deprivation either in income or other terms but rather insecurity and exposure to risk and shock. Advocates of the social exclusion perspective have sought to distinguish it from the conventional income approach through its emphasis on both multidimensionality and dynamics – the manner in which processes unfold over time. Where appropriate longitudinal or panel data are available the latter concern can be addressed in a fairly straightforward fashion. Even in the absence of such data, increasing concern has been expressed that the focus should extend beyond a description of the current circumstances of individuals in order to get some sense of how they are likely to have fared in the past and what their future prospects might be. The IMF (2003), the UN (2003) and the World Bank (2000) have developed a range of approaches to measuring vulnerability at the macro level. The World Bank (2000) sees vulnerability as reflecting both the risk of experiencing an episode of poverty over time but also a heightened probability of being exposed to a range of risks.

Developing appropriate measures of vulnerability at the individual, as opposed to the aggregate level, requires application of innovative statistical procedures. We begin by seeking to implement a relatively restricted notion of vulnerability. Starting with the income and deprivation elements that make up the consistent poverty measure we add an indicator relating to the extent to which households experience “difficulty in making ends meet”. We then ask to what extent we can identify a cluster of individuals who are characterised by a multidimensional profile relating to these three indicators that involves a heightened level of risk that contrasts sharply with the situation for the remainder of the population. The contrast we must stress is in terms of risk profiles rather than existing patterns of deprivation. To take an example from another area, it is similar to the situation where we are concerned not with whether an individual has been involved in a car accident in the current observation period but with their risk of being so involved in the future. In order to establish whether groups with such contrasting risk profiles can be established we use a statistical technique known as latent class analysis. In contrast to factor analysis which seeks to identify distinct clusters of items or indicators, latent class analysis seek to distinguish groups of individuals who display contrasting profiles in relation to a range of indicators. It is clearly suitable, therefore, to address the multidimensional aspects of social exclusion. However, in addition, in focusing on risk profiles rather than simply current outcomes it introduces a dynamic perspective.

In developing measures of vulnerability we are seeking to develop point in time proxies for the kind of risk of exposure to persistent disadvantage that is captured in panel surveys. Here, following Whelan and Maitre (2005a and b), we implement an approach to the measurement of vulnerability at the micro level through the use of latent class analysis. In evaluating the scale and pattern of material deprivation in Ireland, we will develop a tiered approach to the conceptualisation and measurement of multiple deprivation.

We commence by focusing on the measurement of economic vulnerability, which is understood to go substantially beyond being at risk of income poverty. However, this approach remains focused on a restricted range of deprivations involving relatively extreme disadvantage in terms of income poverty, rather basic living conditions and experience of economic stress. We will then proceed to illustrate the relationship between such economic vulnerability and both income poverty and “consistent poverty”.<sup>44</sup>

The approach we adopt in analysing economic exclusion involves an analysis of manifest indicators in order to identify underlying or latent vulnerability. We seek to allocate individuals to distinct clusters on the basis of their response patterns in relation to key indicators. We achieve this objective by the application of latent class analysis. The basic idea underlying such analysis is that the associations between a set of categorical variables, regarded as indicators of an unobserved typology are accounted for by membership of a small number of latent classes.<sup>45</sup> Latent class analysis assumes that each individual is a member of one and only one of  $N$  latent classes and that, conditional on latent class membership, the manifest variables are mutually independent of each other.

Our focus initially is on three key indicators – household income poverty, basic deprivation and reporting that one’s household experiences difficulty in making ends meet. In order to provide us with sufficient degrees of freedom our income poverty variable has four categories distinguishing between those below 50 per cent of median income; between 50-60 per cent; between 60-70 per cent and above 70 per cent. Our analysis is thus based on the distribution of frequencies in a 4x2x2 table comprising sixteen cells. For income poverty we report the conditional probabilities of being below each of the three median income lines and for deprivation we report an enforced lack of two or more items. The economic stress variable distinguishes those households that have difficulty or great difficulty

<sup>44</sup> The following analysis draws on Whelan and Maitre (2007c).

<sup>45</sup> See Lazarsfeld and Henry (1968) and more recently Magidson and Vermunt (2004) and McCutcheon and Mills (1998) for discussion of latent class models. Recent applications to the analysis of social exclusion include Moisiso (2004) and Dewilde (2004), Whelan and Maitre (2004 and 2005a and b).

in making ends meet.<sup>46</sup> Our objective is to identify a group who are vulnerable to economic exclusion in being distinctive in their risk of falling below a critical resource level, being exposed to rather basic life-style deprivation and in their level of subjective economic stress. (The model is estimated using the LEM algorithm, described in Vermont, 1993.)

In our analysis of economic vulnerability our hypothesis is that there are two underlying groups. In our later analysis of broader patterns of multiple deprivation we will hypothesise a more complex underlying structure. In Figure 3.1 we show the results of fitting such a model to the income poverty, basic deprivation and subjective economic stress indicators. Our procedures for deciding how well a division of the population into those vulnerable to economic exclusion and the non-vulnerable population involves comparing the observed and expected values in the sixteen cell table. The expected values are those deriving for a model involving two latent classes. The model misclassifies less than 0.5 per cent of cases and the formal  $G^2$  measure of goodness of statistical fit returns a value of 11.3 with 4 degrees of freedom. This involves a reduction in the value of the benchmark independence model, which specifies that there is no relationship between income poverty, basic deprivation and subjective economic stress, of 99.7 per cent.

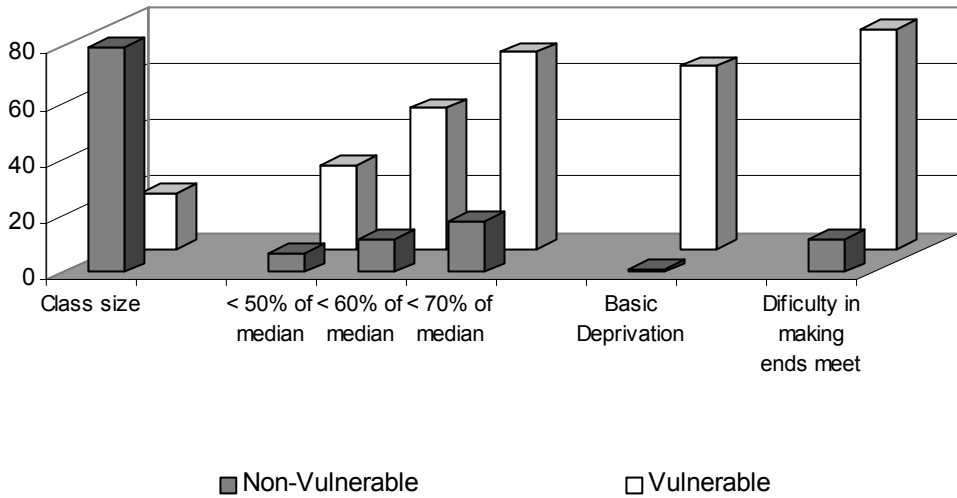
Application of the model identifies one in five of the population as being economically vulnerable. At all three income poverty lines the economically vulnerable are approximately, four times more likely to be below the relevant threshold. At the 50 per cent line the respective percentages are 30 per cent and 7 per cent and these rise to 70 per cent and 18 per cent at 70 per cent of median income. The contrast between economic vulnerability and income poverty is clearly illustrated by these results. At the 60 per cent line, where the number income poor is almost identical to that economically vulnerable, 54 per cent of those below the income threshold are vulnerable. Furthermore, there is no tendency for the association between income poverty and vulnerability to strengthen as the income threshold is made more stringent. In fact, the opposite is the case with the odds of being vulnerable rather than non-vulnerable for the income poor versus non-poor declining from 10:1 at the 70 per cent line to 8:1 at the 60 per cent line and finally to 6:1 at the 50 per cent line.

The economically vulnerable are also sharply differentiated from the non-vulnerable in terms of their exposure to subjective economic stress with the respective figures being 78 per cent and 12 per cent. However, while these disparities are substantial, the primary factor differentiating the latent classes is their risk of

<sup>46</sup> We use the label economic stress for this variable rather than economic strain as in earlier work because Eurostat has taken to using the latter term for something close to the basic deprivation index employed in earlier Irish work on consistent poverty.

experiencing an enforced lack of two or more of the items making up the basic deprivation index. While 65 per cent of the vulnerable group fall into this category this is true of only 1 per cent of the non-vulnerable.

**Figure 3.1: Latent Class Analysis of Vulnerability to Economic Exclusion**



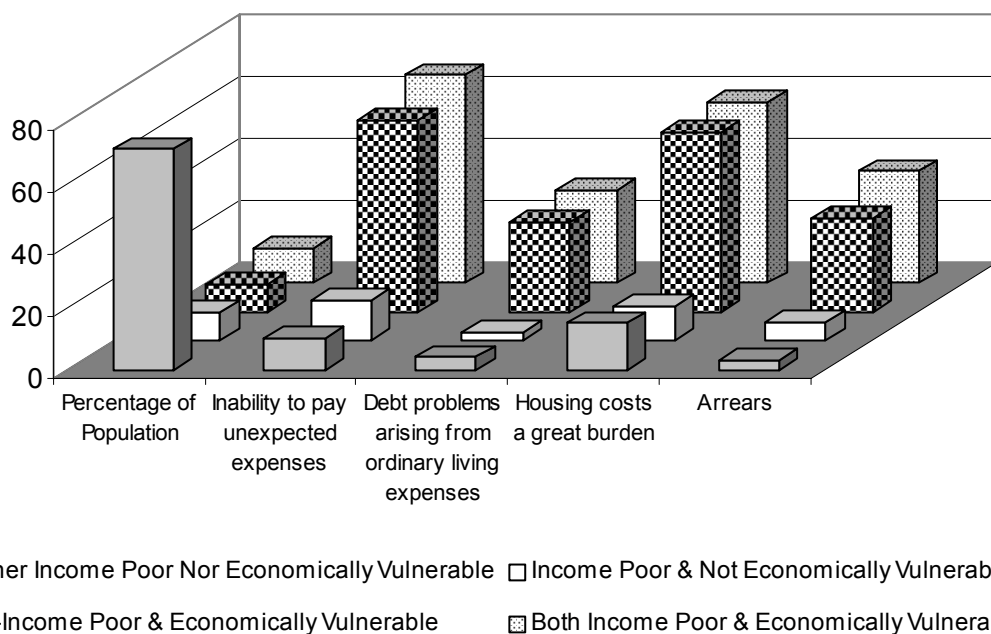
### 3.3 Income Poverty and Economic Vulnerability

The percentage of the population we identify as economically vulnerable is practically identical to that found below 60 per cent of median income. In order to illustrate the consequences of focusing on one rather than the other distinction, we begin by constructing the four-fold typology resulting from cross-classifying the variables. In Figure 3.2 we then break down a set of variables relating to subjective economic pressures by the categories of this typology. The four indicators comprise inability of the household to cope with unanticipated expenses; debts relating to routine expenses; arrears in connection with mortgage; rent; hire purchase payments etc.; and experiencing housing costs as a great burden. A consistent pattern emerges whereby those vulnerable but not income poor at 60 per cent of median income report levels of economic pressure that are remarkably similar to those who are both income poor and vulnerable. Similarly, those who are income poor and non-vulnerable are barely distinguishable from those who are neither income poor nor vulnerable. The intermediate groups, which in both cases account for 9 per cent of the population display remarkably different profiles in terms of their experiences of economic pressures. While almost two-thirds of both segments of the vulnerable report inability to cope with unanticipated expenses this is true of approximately one in ten of the non-vulnerable groups. Similarly, the former are almost ten times more likely to report debt problems and almost four times more likely to experience housing costs as a great burden. The income poor but non-vulnerable group report the lowest level of economic pressure in relation to housing



expenses. For arrears the figure falls marginally from 36 per cent of those both income poor and vulnerable to 30 per cent for those vulnerable but not poor. It then declines sharply to 6 per cent for the income poor but non-vulnerable before reaching its lowest value of 3 per cent for those neither poor nor vulnerable. Clearly those who are income poor and non-vulnerable do not conform to our expectations for a group that we would wish to designate as “poor”. Whether that label should be applied to those who are economically vulnerable but not income poor is a question that we leave open for the moment.

**Figure 3.2: Economic Pressures by Income Poverty and Economic Vulnerability Typology**



Some insight into why these groups differ is given by the results of a multinomial regression analysis set out in Table 3.1. This identifies some socio-economic characteristics that differentiate the other three categories from those who are neither income poor nor economically vulnerable. The socio-economic factors on which we focus include employment status (with employees having no experience of unemployment in the previous year as the reference category), marital status, number of children, being a lone parent, age group, education, urban-rural<sup>47</sup> location and housing tenure. The coefficients reported are the odds on being in the category in question rather than being neither income poor nor vulnerable. Not surprisingly those who are both poor and vulnerable are sharply differentiated from those who are neither across the range of

<sup>47</sup> Urban being defined as major cities and suburbs.

variables under consideration. As we would expect, those not at work are much more likely to be found in this category, so too, however, are the self-employed and farmers and those employees with experience of unemployment in the previous twelve months. Those who are not married or are separated/divorced, lone parents, have less than lower secondary education or are in rural locations are also more likely to be in this category.<sup>48</sup> The relationship to age is curvilinear with those aged 65 years and over having the lowest risk and those aged 30-49 years the highest. Thus, life-cycle effects clearly play a role and those in households with more than two children are also at increased risk. Finally, those in rural locations, private tenants but more particularly local authority sector tenants are also significantly more likely to be found in this category.

**Table 3.1: Multinomial Regression of Income Poverty at 60 Per Cent of Median Income and Economic Vulnerability Typology on Household and Household Reference Person Socio-Economic Characteristics**

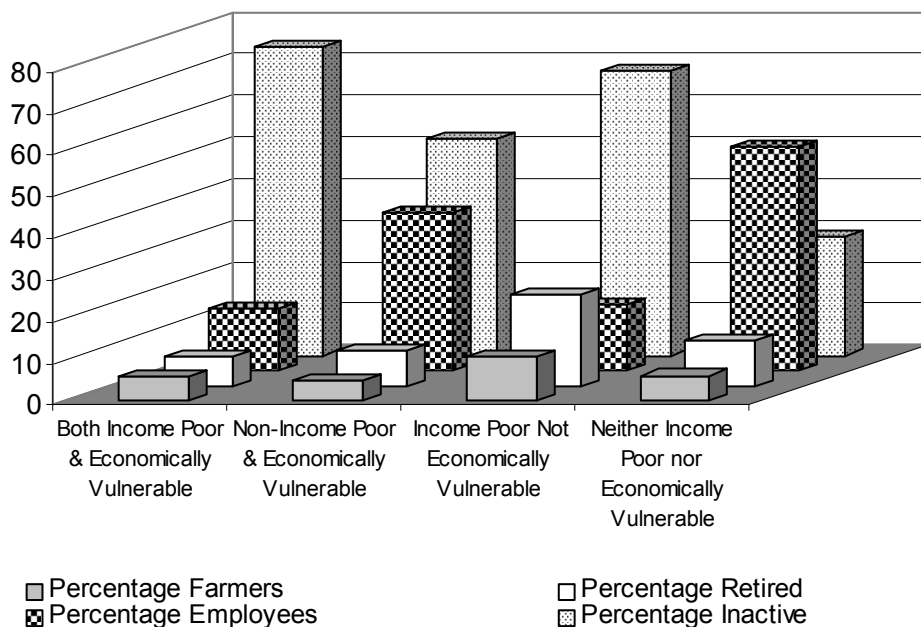
	Both Income Poor & Economically Vulnerable		Non-Income Poor & Economically Vulnerable		Income Poor Not Economically Vulnerable	
<b>Employment Status</b>						
Self-employed with employees	1.107	n.s.	0.414	***	1.380	n.s.
Self-employed without employees	3.621	***	0.963	n.s.	1.568	*
Farmer	5.303	***	1.868	***	5.735	***
Employee – unemployed in previous 12 months	3.856	***	0.985	n.s.	1.377	n.s.
Ill/Disabled	23.005	***	5.096	***	11.535	***
Unemployed	16.401	***	2.625	***	5.331	***
In Education	15.270	***	2.858	***	8.062	***
Home-Duties	8.774	***	1.674	***	5.559	***
Retired	5.881	***	0.973	n.s.	5.331	***
<b>Marital Status</b>						
Single	1.589	***	1.255	*	1.430	***
Widowed	1.422	*	1.377	*	1.526	***
Separated/Divorced	3.486	***	2.168	***	2.279	***
Number of Children > 2	2.605	n.s.	2.063	***	2.343	***
Lone Parent	4.612	***	2.837	***	2.314	***
<b>Age Group</b>						
Under 30 years	2.897	***	0.836	n.s.	0.767	n.s.
30-49 years	4.114	***	0.998	n.s.	1.005	***
50-64 years	2.524	***	0.646	***	1.151	***
<b>Education</b>						
Primary	5.801	***	2.751	***	2.383	***
Lower Secondary	2.691	***	2.228	***	1.593	***
Urban Location	0.768	***	0.886	*	0.533	***
<b>Tenure</b>						
Private Tenant	1.446	***	3.498	***	1.328	n.s.
Local Authority Tenant	3.592	***	4.222	***	1.797	***
Nagelkerke R <sup>2</sup>	0.354					
Reduction in Likelihood Ratio	4,929.6					
Degrees of Freedom	66					

<sup>48</sup> Female headed households have a higher gross risk level but the net effect is not statistically significant.

The comparison between the remaining two categories is particularly interesting. Those who are income poor but not vulnerable are sharply differentiated from those who are vulnerable but not poor, in terms of a number of key characteristics. Membership of the former category is more strongly associated with being a farmer and with being inactive in the labour market, but most particularly being retired or in education. To a lesser extent it is associated with being self-employed, being in a rural location and negatively correlated with being a tenant.

A clear sense of these differences can be obtained by looking, as we do in Figure 3.3 and Figure 3.4, at differences in composition between the categories of the typology in relation to a number of key characteristics. Starting with Figure 3.3 first, while only one in six of those income poor but not economically vulnerable are employees, the figure for the vulnerable but not poor comes close to two out of five. In contrast two out of three of the former are inactive compared to one in two of the latter. The corresponding figures for retirement are one out of five of the former and one in twelve for the latter. The comparable figures for farmers are one in ten and one in twenty and in Figure 3.4 for rural location four out of five and almost two out of three.

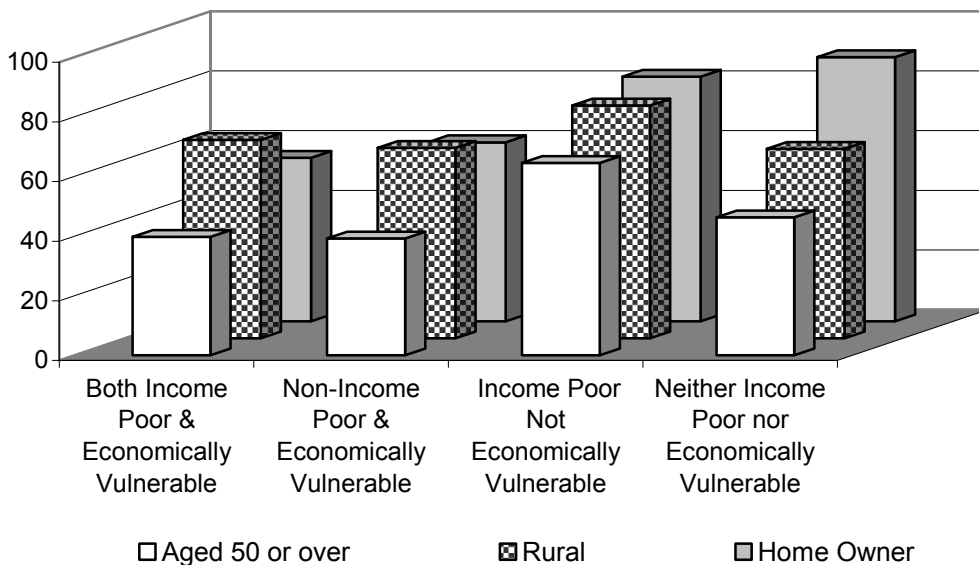
**Figure 3.3: Variation in Labour Force Status Composition (Per Cent) by Categories of the Income Poverty-Economic Vulnerability Typology**



Furthermore, while it is not obvious from the net multinomial coefficients, the age composition of the groups differs substantially. In Figure 3.4 while two out of three of the income poor but non-vulnerable are aged 50 years or over this is true of only two out of

five of the vulnerable but non-poor. Finally, while four-fifths of the former are homeowners this is true of only three-fifths of the latter.

**Figure 3.4: Variation in Socio-economic Composition (Per Cent) by Categories of the Income Poverty-Economic Vulnerability Typology**



In summary, the income poor and the non-vulnerable are more likely than the vulnerable but non-income poor to be older, farmers or retired, in rural locations and homeowners. It appears that this group are able to draw on resources beyond their current income to buffer themselves against a range of economic pressures. The vulnerable but non-income poor exhibit a profile remarkably similar to those who are both income poor and vulnerable with the key exception being that they are almost twice as likely to be employees and are correspondingly less likely to be inactive. However, their greater probability of being in employment is not sufficient to insulate them from a range of economic pressures.

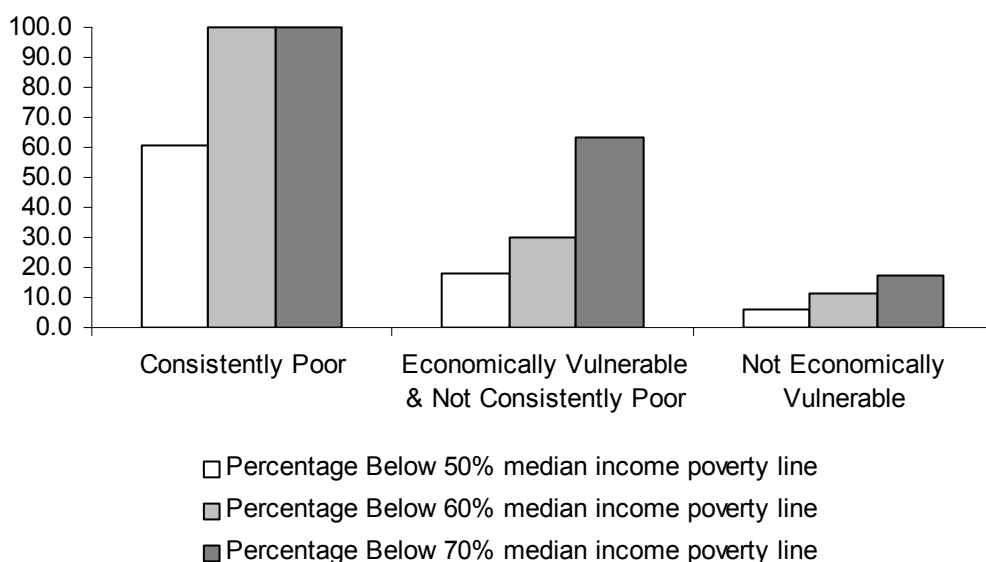
### 3.4 Consistent Poverty and Economic Vulnerability

A rather different situation prevails regarding the association between economic vulnerability and consistent poverty. We define the latter as being below 60 per cent of median income and experiencing an enforced lack of two or more basic items; 6.6 per cent of the population are identified as falling into that category. While 33 per cent of the economically vulnerable cluster are consistently poor, this is true of none of the non-vulnerable group. Thus, the consistently poor constitute a sub-set of the economically vulnerable. The proportions of the latter category consistently poor and non-poor represent respectively one-third and two-thirds of the population. The manner in which we characterise the latter group is crucial to our understanding of the nature and scale of material deprivation in Ireland after the Celtic Tiger. We provide a detailed

profile of the economically vulnerable in the next section, but first here we make use of a threefold typology that distinguishes between those who are both economically vulnerable and consistently poor; those vulnerable but not consistently poor; and those not economically vulnerable. For convenience we will refer to the first category simply as the consistently poor and to the second as the non-poor vulnerable. The first two categories each constitute respectively 7 per cent and 13 per cent of the population while the remaining 80 per cent are found in the final category. Using this categorisation, in Figures 3.5, 3.6 and 3.7 we break down respectively income poverty rates, individual basic deprivation indicators and measures of subjective economic pressures.

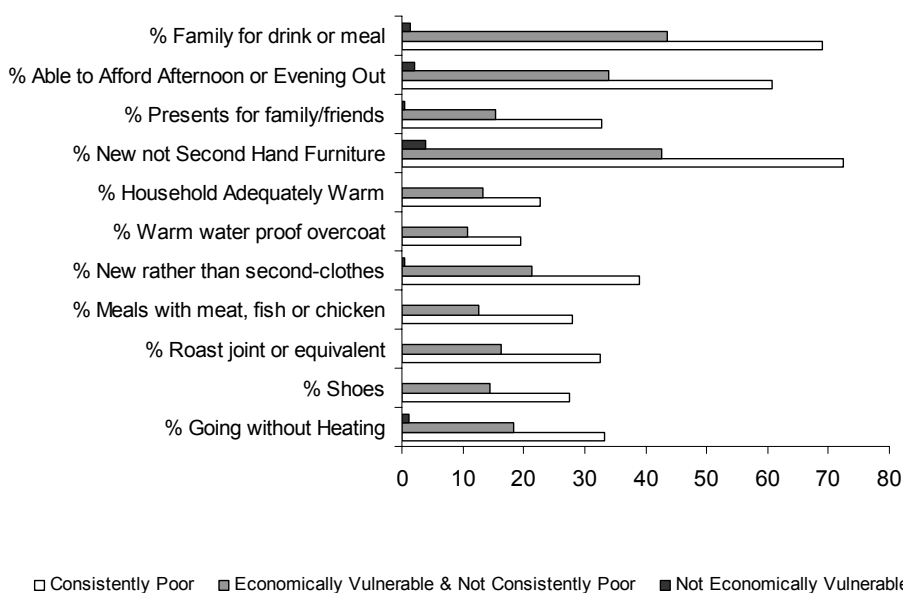
Figure 3.5 shows that there is a clear relationship between economic vulnerability and income poverty. For those consistently poor, six out of ten are poor at 50 per cent of median income, and, by definition, all are below the 60 per cent and 70 per cent threshold. The income poverty rates for those vulnerable but not consistently poor are approximately one-third of those of the first group at the 50 per cent and the 60 per cent line and almost two-thirds at the 70 per cent line. The poverty rates for the non-vulnerable group are approximately three times less than those of the second group at the 50 per cent and 60 per cent line and almost four times less at the 70 per cent line. Thus, in terms of income poverty, we observe sharp differentiation across the categories of the typology with the economically vulnerable but not consistently poor occupying an intermediate position. In particular, we should note that seven out of ten of the group are in households above 60 per cent of median income.

**Figure 3.5: Income Poverty by Economic Vulnerability and Consistent Poverty**



With Figure 3.6 we turn our attention to the basic deprivation indicators and observe that among the consistently poor, seven out of ten report that they cannot afford new furniture or have friends or family over for a meal or a drink once a month; about six out of ten indicate that they cannot afford an afternoon or evening out; and lower but still substantial proportions report being deprived of the other eight items. The deprivation rates for the economically vulnerable but not poor group range between one-half and one-third of those for the consistently poor. Deprivation levels are extremely low for the non-vulnerable, mostly below 1 per cent. The mean scores on the basic deprivation index for the three groups are respectively 4.4, 2.4 and 0.1. The non-vulnerable are thus almost entirely buffered from the kind of basic deprivation under consideration. The consistently poor experience distinctively high levels of such strain. The vulnerable but non-poor once again occupy an intermediate position.

**Figure 3.6: Basic Deprivation by Economic Vulnerability and Consistent Poverty**

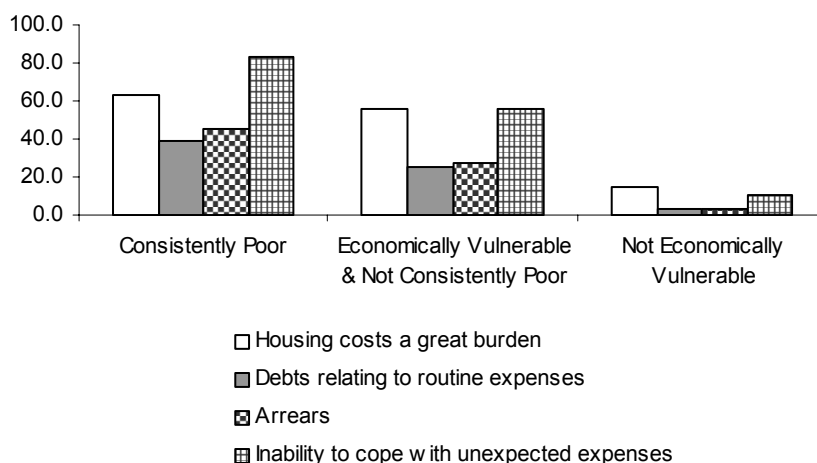


Finally, in Figure 3.7 we focus our analysis on the four indicators of subjective economic pressure referred to earlier. Once again the consistently poor are quite distinctive with four out of five indicating inability to cope with unanticipated expenses, three out of five reporting that housing expenses are a great burden, four out of nine having arrears and almost four out of ten reporting accumulation of debts in relation to routine expenses. The subjective experience of these households mirrors their profile of material deprivation. For the non-vulnerable, levels of economic pressure are extremely low. In particular, only very small numbers report debts or arrears. The economically vulnerable are rather closer to the consistently poor

with regard to their experience of economic pressures than in relation to their levels of income poverty and basic deprivation.

The 80 per cent of the population that constitute the non-vulnerable group are effectively insulated from basic deprivation and stress. The 7 per cent who make up the consistently poor conform in every respect to the pattern that we would anticipate for a group afforded such a label. The other 13 per cent who are vulnerable but not consistently poor clearly experience considerable levels of economic pressure and are characterised by levels of income poverty and basic deprivation that set them apart from the non-vulnerable. However, in relation to both these final dimensions they enjoy considerable advantages over the consistently poor. Thus, we would be extremely reluctant to simply merge them with the consistently poor for the purpose of description or analysis. In order to gain further insight into the nature of these two groups, in the next section we examine the socio-economic characteristics of the households who are economically vulnerable and compare them with the consistently poor.

**Figure 3.7: Subjective Economic Pressure by Economic Vulnerability and Consistent Poverty**



### 3.5 The Socio-economic Profile of the Economically Vulnerable and the Consistently Poor

In Table 3.2 we display the results of a multinomial regression that contrasts the consistently poor and economically vulnerable groups with a reference category of those neither poor nor vulnerable. In this case in order to have reasonably equal number of respondents in the first two categories we operate with the consistent poverty line specified at the 70 per cent level. While the first two groups are clearly differentiated from the reference category, the contrast is considerably sharper in the case of the consistently poor. While farmers and the self-employed with employees are more likely to be found in the vulnerable only category rather than the consistently poor cluster, the opposite is true for the self-employed with and without employees. For each of the forms of labour market

inactivity the odds ratios relating to the consistently poor cluster is substantially higher than that pertaining to the vulnerable group. Separation/divorce is also more strongly associated with consistent poverty as is education and being a public sector tenant. These differences are also reflected in the composition of the groups, most notably in the fact that almost eight out of ten of the consistently poor are inactive compared to one in three of those who are economically vulnerable but not consistently poor. Similarly, while almost two-thirds of the latter are homeowners this is true of less than one in two of the consistently poor. Overall, while the economically vulnerable are clearly different in important respects from those who are neither vulnerable nor consistently poor, there is no compelling argument for merging them with the consistently poor.

**Table 3.2: Multinomial Regression of Overlap Typology or Income Poverty at 60 Per Cent of Median Income, Economic Vulnerability and Consistent Poverty at 70 Per Cent of Median Income on Household Socio-Economic Characteristics**

	Consistently Poor		Economically Vulnerable but not Consistently Poor	
	Exp (B)	Sig.	Exp (B)	Sig.
<b>Employment Status</b>				
Self-employed with employees	0.342	*	0.662	*
Self-employed without employees	2.315	***	1.277	*
Farmer	1.043	n.s.	2.761	***
Employee – unemployed in previous 12 months	2.253	***	1.500	**
Ill/Disabled	11.674	***	3.904	***
Unemployed	9.429	***	3.080	***
In Education	11.242		1.914	
Home-Duties	5.341	***	1.774	*
Retired	2.157	***	1.617	***
<b>Marital Status</b>				
Single	1.747	***	1.052	n.s.
Widowed	0.916	n.s.	1.642	***
Separated/Divorced	3.464	***	1.640	***
Number of Children > 2	1.560	***	2.173	***
Lone Parent	2.571	***	3.451	***
<b>Age Group</b>				
Under 30 years				
30-49 years	1.678	***	1.593	*
50-64 years	1.959	***	2.031	***
<b>Education</b>				
Primary	5.177	***	2.698	***
Lower Secondary	3.096	***	1.904	***
<b>Urban Location</b>				
	0.737	***	1.081	n.s.
<b>Tenure</b>				
Private Tenant	2.028	***	2.641	***
Local Authority Tenant	4.796	***	2.236	***
Nagelkerke R <sup>2</sup>		0.314		
Reduction in Likelihood Ratio		3,528.6		
Degrees of Freedom		44		
N		7,935		



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### 3.6 Conclusions

In this chapter we have engaged with conflicting interpretations of levels and patterns of material deprivation in Ireland, once again by analysis of data from EU-SILC for 2004. Some Irish sociologists have argued that the widespread existence of such vulnerability characterises recent Irish experience, but while the concept of vulnerability has come to have widespread usage, most attempts at operationalisation have operated at a macro level. Here our starting point was the development and use of latent class analysis to identify an economically vulnerable cluster at the micro level.

This allowed us to identify two clusters sharply distinguished by levels of income poverty, subjective economic stress and, most particularly, exposure to basic deprivation. This group constitutes one-fifth of the population; a figure that by coincidence is almost identical to the proportion falling below the 60 per cent of median relative income poverty threshold. However, only about half those below this income threshold are also vulnerable. Those who are vulnerable but not poor are very similar to those who are both, in terms of their reports of economic pressures, while those who are poor and non-vulnerable are very close to those who are neither. The income poor but non-vulnerable are more likely than the vulnerable but non-poor to be older, farmers or retired, homeowners and to be located in rural areas. It would seem likely that such groups can draw resources that insulate them from a range of economic pressures. If our concern is with economic marginalisation, it would seem much more satisfactory to focus on the economically vulnerable rather than the income poor.

We found that the consistently poor constitute a subset of the economically vulnerable. A series of striking contrasts emerge between the former and the non-vulnerable in terms of income poverty levels, subjective economic stress and basic deprivation. The economically vulnerable but not consistently poor exhibit a profile of disadvantage intermediate to that characterising the consistently poor and the non-vulnerable. However, they resemble the consistently poor much more closely in terms of their experience of economic pressures than objective resources and living standards. The consistently poor are also sharply distinguished from the vulnerable but non-poor in terms of their socio-economic profile being substantially more likely to be inactive in the labour market, more poorly educated and less likely to be homeowners. Thus, there is no compelling argument for merging them with the consistently poor for descriptive or analytical purposes.

# 4. MULTIPLE DEPRIVATION: A DESCRIPTIVE APPROACH

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## 4.1 Introduction

Chapter 3 presented a measure of economic vulnerability that allows one to focus on a broader set of households than the relatively small group consistently poor. In this chapter we also pursue a broadening of focus, but in a different way. In Chapter 2, five distinct dimensions of deprivation were identified, namely

- Broad Basic Deprivation.
- Consumption Deprivation.
- Housing Facilities Deprivation.
- Neighbourhood Environment, and
- Health.

Up to this point, it is only the first of these dimensions, broad basic deprivation, that has been included in our analysis, either on its own or as part of the consistent poverty measure. While there are good reasons for giving basic deprivation priority, we are also interested in the other dimensions and, most particularly, in the relationships between the various dimensions and the extent to which deprivation cumulates across them. In this chapter we present a descriptive analysis, investigating the inter-relationships between the dimensions in Section 4.2, and then looking at the scale of multiple deprivation in Section 4.3. The relationship between multiple deprivation and self-assessed economic pressures is analysed in Section 4.4. Section 4.5 examines how multiple deprivation relates to relative income poverty, consistent poverty and economic vulnerability. Conclusions are summarised in Section 4.6, and similar issues are then pursued via more formal statistical methods in Chapter 5.

## 4.2 The Relationships Between Dimensions of Deprivation

We look first at the relationship between each of the five dimensions of deprivation via calculating correlation coefficients. Table 4.1 displays the pattern of correlations between the five deprivation dimensions. The broad basic deprivation measure correlates substantially with the consumption deprivation dimension with a correlation of 0.62 being observed. The correlations with the housing, neighbourhood environment and health status dimensions are a good deal weaker. The highest correlation is one of 0.27 with neighbourhood environment and the lowest is that of 0.17 with health status of the household reference person. The pattern for consumption deprivation is rather similar, with an identical correlation being observed with housing facilities and a marginally lower one with neighbourhood environment and health status. Housing facilities deprivation has marginally higher associations with neighbourhood environment than health status with the observed degree of correlation being 0.16 and 0.13 respectively. Finally, a similar level of correlation is found between neighbourhood environment and health status.<sup>49</sup>

**Table 4.1: Correlations between Deprivation Dimensions**

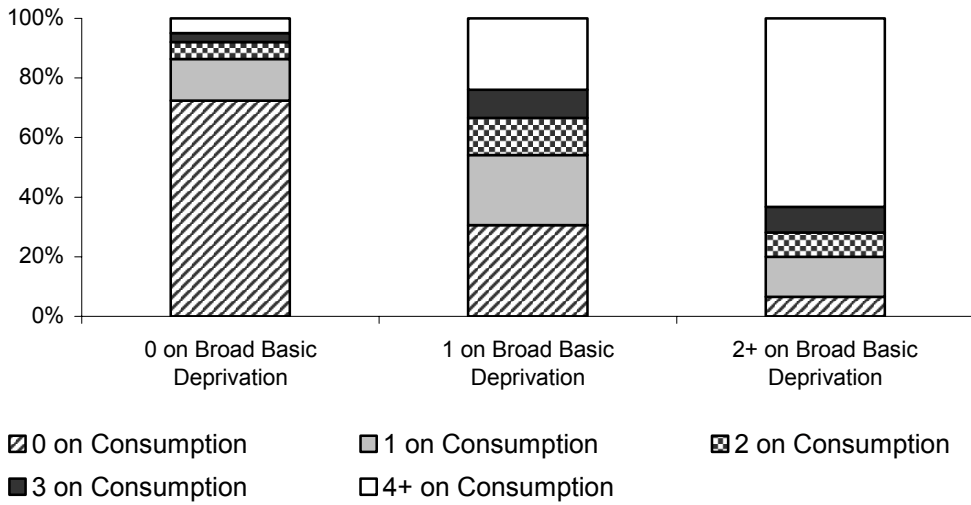
	Broad Basic Deprivation	Consumption	Housing	Neighbourhood Environment	Health
Broad Basic Deprivation	1.00				
Consumption	0.62	1.00			
Housing	0.22	0.22	1.00		
Neighbourhood Environment	0.27	0.23	0.16	1.00	
Health	0.17	0.15	0.13	0.14	1.00

While the patterns of association in Table 4.1 clearly confirm that we are dealing with relatively distinct dimensions, as we noted earlier, the magnitude of such correlations are not entirely informative about patterns and levels of multiple deprivation. In order to go beyond our analysis to date we start by looking at a selection of cross-tabulations involving pairs of dimensions.

In Figure 4.1 we show the distribution of consumption deprivation for a range of broad basic deprivation scores. Of those who score zero on the broad basic dimension 72 per cent also do so on the consumption dimension and only 5 per cent score four or more. For those lacking one basic item the corresponding figures are 31 per cent and 24 per cent, and for those scoring two or more on the broad basic dimension the respective figures are 7 per cent and 63 per cent. There is, therefore, both a strong association between the dimensions and a considerable overlap.

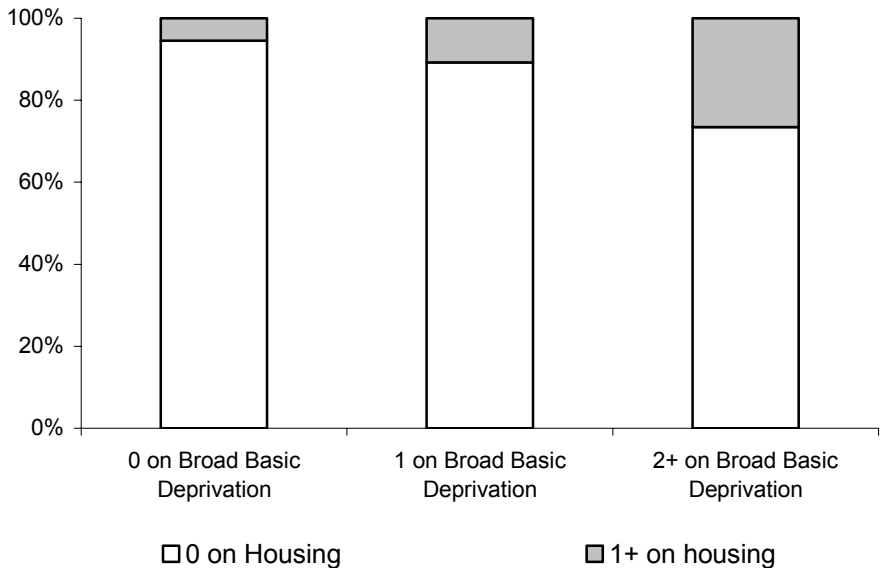
<sup>49</sup> The pattern of inter-correlation is as we would expect on substantive grounds. However, it will also be affected by variations in the reliability levels of the indices with, all other things being equal, correlations being stronger for pairs of items with higher levels of reliability.

**Figure 4.1: Consumption Deprivation by Basic Deprivation**



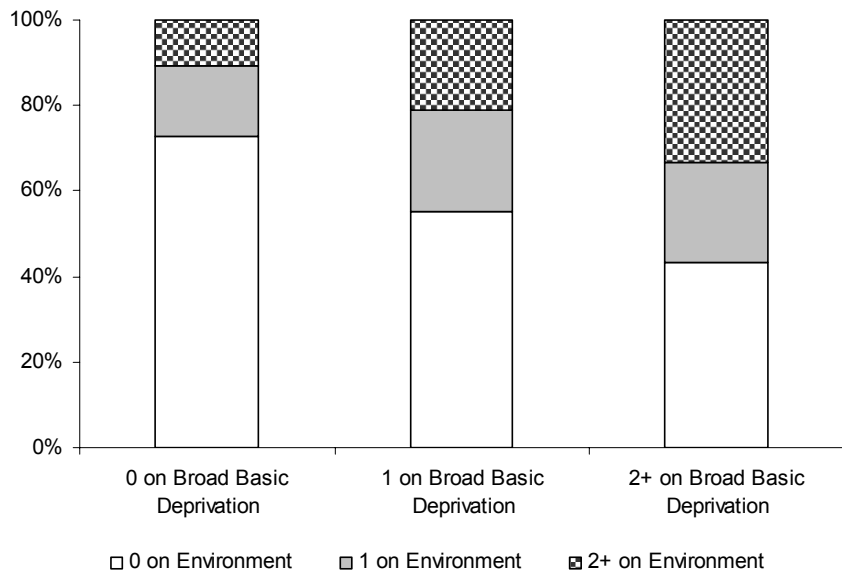
In Figure 4.2 we show the corresponding relationship between the housing and broad basic deprivation dimensions. Of those lacking no basic items, only 6 per cent lack at least one housing item. This rises to 11 per cent for those lacking one basic item and to 27 per cent for those lacking two or more basic items. Housing deprivation rises sharply in line with basic deprivation, but a substantial majority of people reporting basic deprivation do not experience housing deprivation.

**Figure 4.2: Housing Deprivation by Basic Deprivation**



In Figure 4.3 we look at the relationship between neighbourhood environment deprivation and the broad basic deprivation dimension. Of those scoring zero on the broad basic dimension, 73 per cent have an identical score on neighbourhood etc. deprivation, while 11 per cent have scores of two or more. For those lacking one deprivation item the corresponding scores are 55 per cent and 21 per cent and for those scoring two or more the relevant figures are 43 per cent and 33 per cent. As in the case of housing we find a clearly statistically significant association but relatively modest overlap.

**Figure 4.3: Neighbourhood Environment Deprivation by Broad Basic Deprivation**



In Figure 4.4 we focus on the relationship between housing deprivation and consumption deprivation. Only 5 per cent of those lacking no consumption items experience housing deprivation but this rises steadily to five times this level for those scoring four or more. While almost all of those who manage to avoid consumption deprivation are insulated from housing deprivation so too are most of those experiencing relatively high levels of consumption deprivation.

**Figure 4.4: Housing Deprivation by Consumption Deprivation**

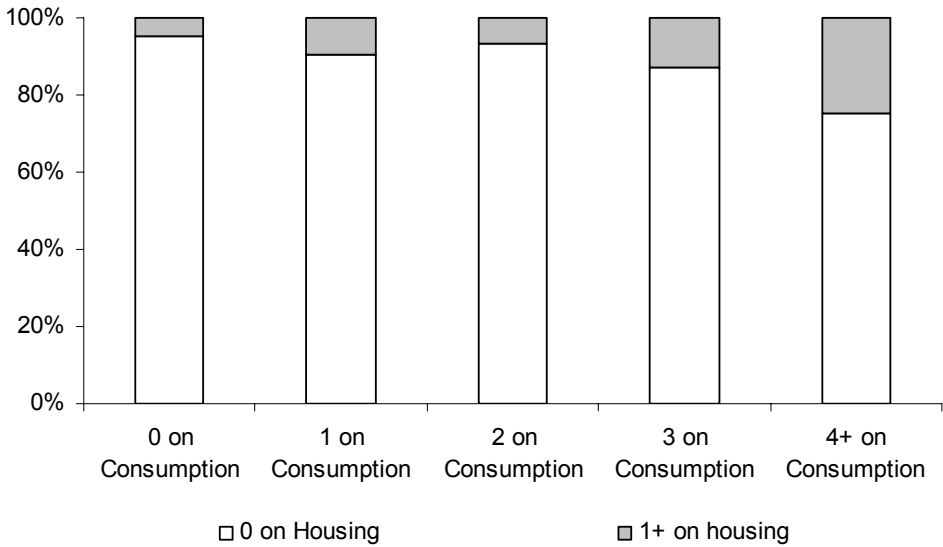
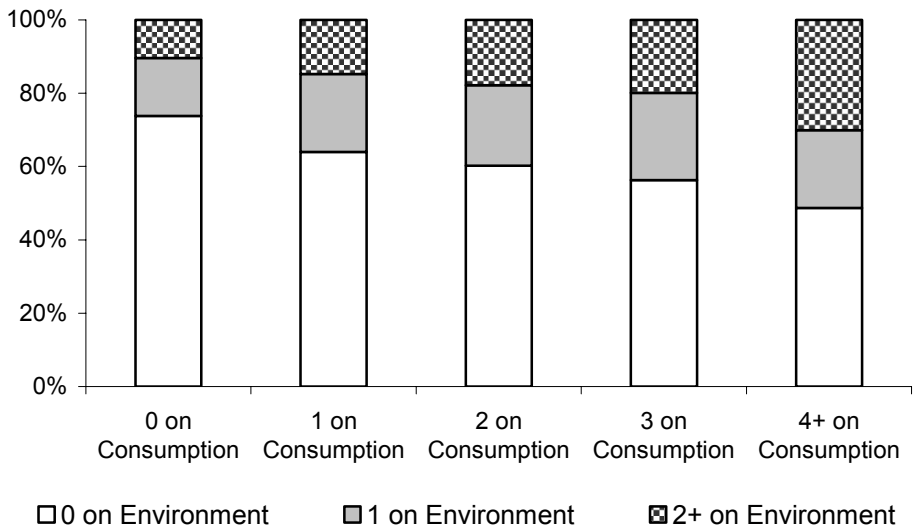


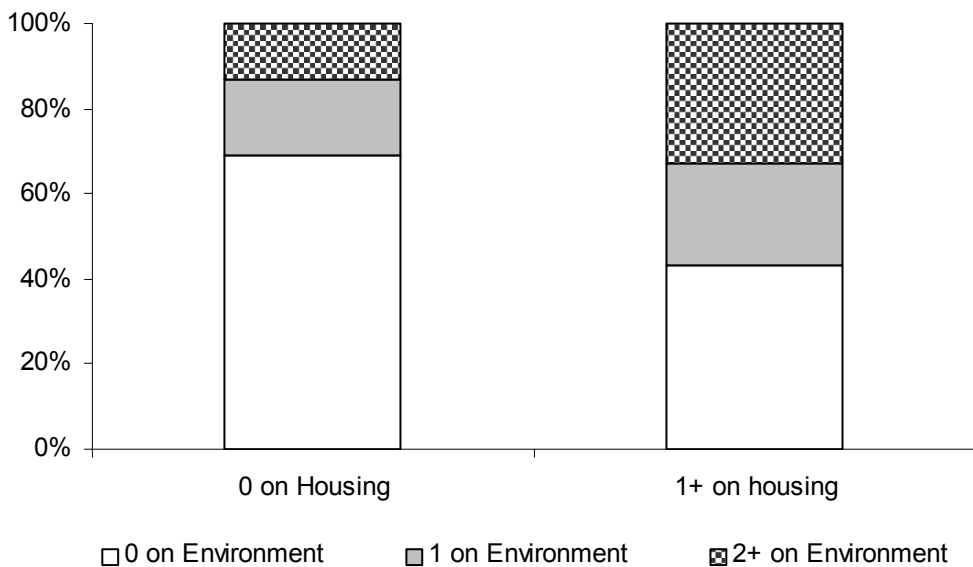
Figure 4.5 sets out the relationship between neighbourhood environment deprivation and the consumption deprivation. Of those lacking no consumption items 74 per cent also report zero neighbourhood deprivation and only 10 per cent report two or more. For those lacking four or more consumption items the corresponding figures are 49 per cent and 30 per cent. The association is somewhat weaker than in the case of housing but is still clearly statistically significant. However, it remains true that a majority of individuals exposed to high levels of consumption deprivation do not report neighbourhood problems.

**Figure 4.5: Neighbourhood Environment Deprivation by Consumption Deprivation**



Finally in Figure 4.6 we look at the relationship between neighbourhood environment problems and housing deprivation. Two out of three of those who avoid housing deprivation achieve similar success in relation to neighbourhood problems. Almost one in five report one problem and just less than one in eight have a score of two or more. The corresponding levels for those experiencing housing problems are in each case just over four out of ten, two out of ten and four out of ten respectively. Our conclusion on overlap on this occasion is substantially affected by whether we focus on those experiencing one or more or two or more; with the overlap being almost 60 per cent in the former case and just over 30 per cent in the latter.

**Figure 4.6: Neighbourhood Environment by Housing Deprivation**

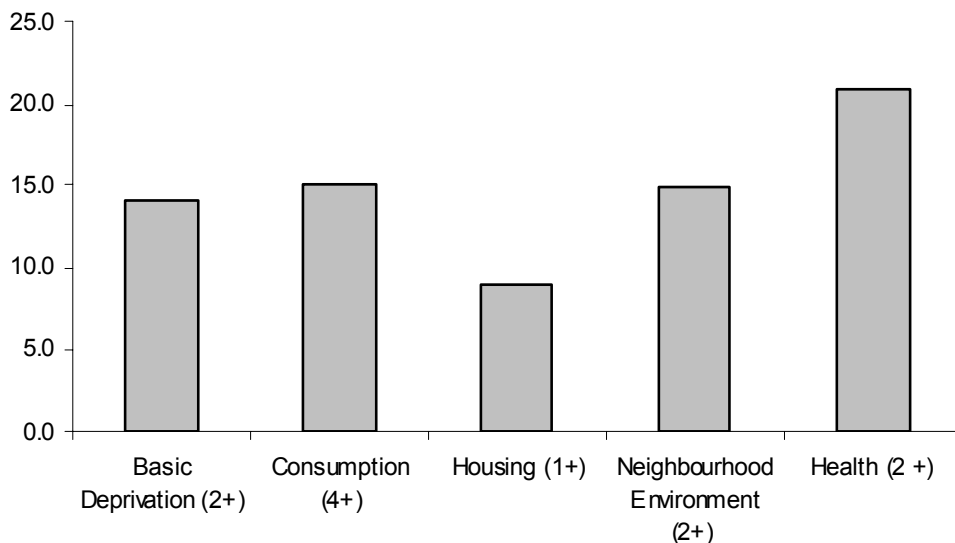


**4.3  
The Scale of  
Multiple  
Deprivation**

As is clear from the above, in order to reach conclusions concerning multiple deprivation it is necessary to define a threshold in relation to each dimension. Any such threshold must to some extent be arbitrary. A reasonable approach would be to define the thresholds so there are equal numbers above them for each of the dimensions. Unfortunately, the fact that the indices are comprised of variable numbers of indicators, and have rather differently shaped distributions, means that this is not a feasible option. We have chosen, therefore, to define our thresholds so that in each case a significant, but variable, minority are above the deprivation cut-off point. This is consistent with the notion that multiple deprivation arises where excluded minorities overlap substantially. In Figure 4.7 we present for each deprivation dimension the corresponding thresholds as well as the percentage of persons above each of them.

Thus for broad basic dimension the threshold is two or more, and almost one in seven persons are found above that threshold. For consumption deprivation the threshold is four or more items, and just over one in seven are located above it. Because of the extreme nature of the housing items the cut-off point is set at one item, and even so only almost one in ten are defined as deprived. For the neighbourhood/environment dimension the threshold is set at two or more, and just over one in seven individuals are found above it. Finally, the same threshold is chosen for health, and one in five are located above it.

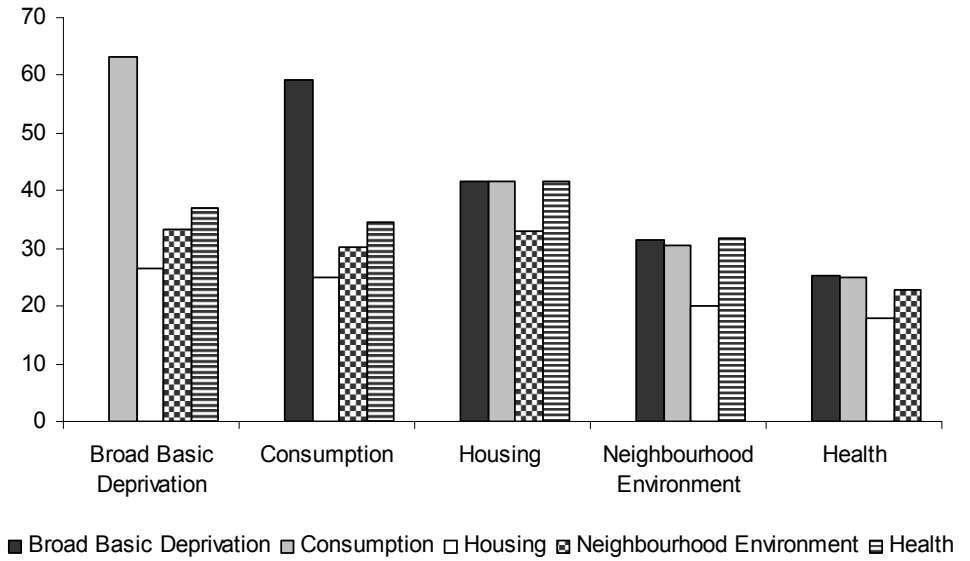
**Figure 4.7: Percentage Above Deprivation Dimension Thresholds**



In Figure 4.8 we show the extent of overlap between the deprivation dimensions using these thresholds. Starting with the broad basic deprivation dimension, almost 40 per cent of those above the critical value for that dimension are also above the health threshold. The degree of overlap varies significantly greater across pairs of dimensions. For the broad basic deprivation-consumption pairing it is approximately 60 per cent, while for broad basic deprivation in combination with each of the other dimensions it averages one in three. Similar levels are observed for the combination of consumption deprivation with the remaining dimensions and for the combination of housing-health and for housing-neighbourhood. For neighbourhood-health the average overlap is somewhat lower.

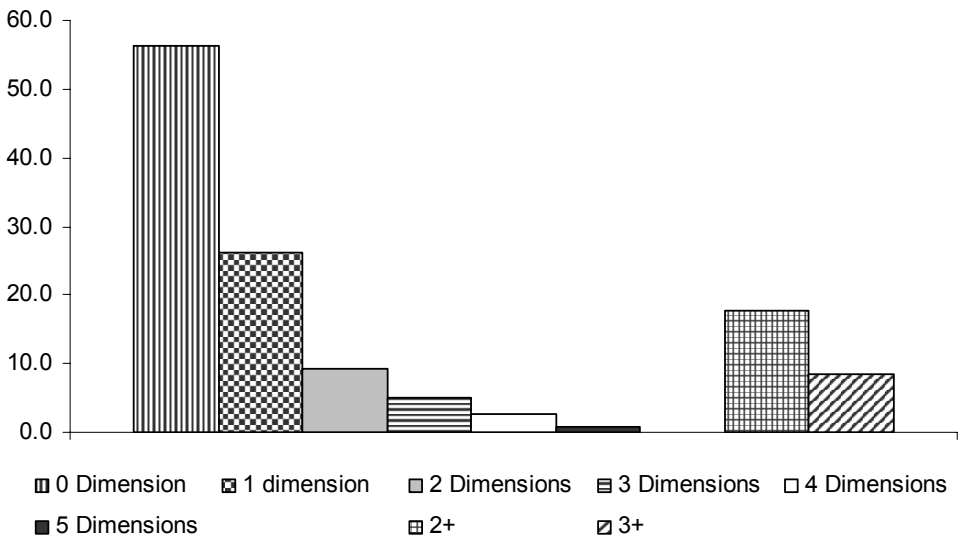


**Figure 4.8: Percentage Above Joint Thresholds for Each Pair of Deprivation Dimensions**



In Figure 4.9 we set out the distribution of multiple deprivation employing the thresholds we have chosen. Over half of our respondents are below the critical threshold on all five dimensions, and just over one-quarter are deprived on only one dimension. About 18 per cent are deprived on two or more dimensions, and about 10 per cent on three or more. Finally, less than 1 per cent are deprived on all five dimensions.

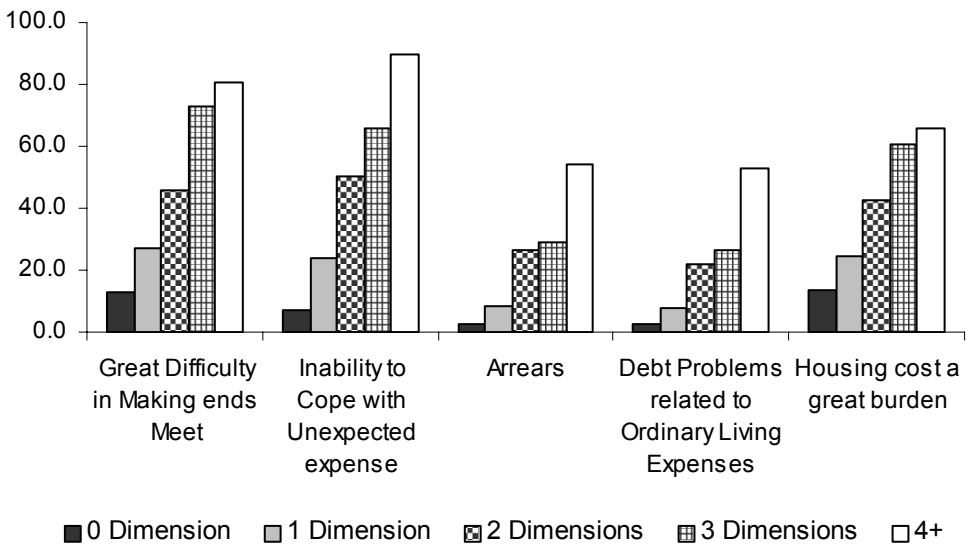
**Figure 4.9: Overall Level of Multiple Deprivation**



**4.4  
Economic  
Pressures and  
Multiple  
Deprivation**

One way of testing how successfully our approach captures the experience of multiple deprivation is to examine how well variation on this variable relates to individuals’ subjective experiences of economic stress. In Figure 4.10 we display the relevant patterns for five of such indicators. Our first indicator relates to the percentage judging that their household has “difficulty” or “great difficulty” in making ends meet in comparison with other households. This figure rises from 13 per cent for those with scores of zero on the multiple deprivation scale to 27 per cent for those with scores of one before rising to 46 per cent; and finally to 73 per cent for those with scores of two and three respectively finally peaking at 81 per cent for those deprived on four or more dimensions. A similar trend is observed in relation to inability to cope with unexpected expenses. The relevant figure rises from 7 per cent for those who entirely avoid deprivation to 24 per cent for those above the threshold on one dimension before increasing sharply to 50 per cent for those deprived on three dimensions; it then rises to 66 per cent for those of scores of three and peaks at 89 per cent for those deprived on four or more dimensions. For experience of arrears as well as for the debt item the number experiencing such difficulties rises steadily from 3 per cent to 54 per cent. Finally, for those finding that housing cost is a great burden the percentage rises progressively from 14 per cent to 65 per cent. In every case there is a clear and powerful relationship between degree of exposure to multiple deprivation and subjective experience of economic stress.

**Figure 4.10: Economic Pressures by Level of Multiple Deprivation**



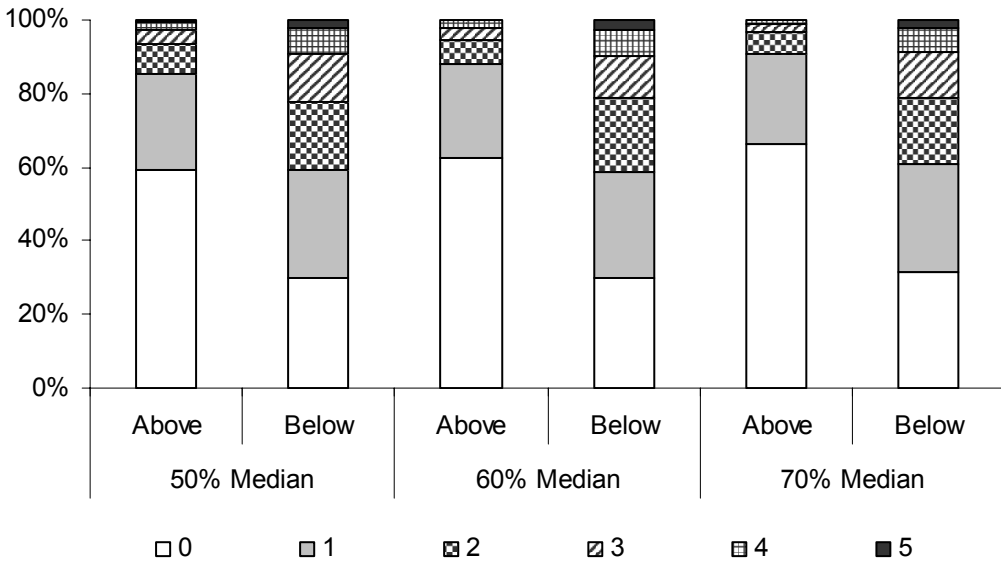
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#### 4.5 Multiple Deprivation by Income Poverty, Consistent Poverty and Economic Vulnerability

What is the relationship between poverty and the experience of multiple deprivation? In Figure 4.11 we show the breakdown by relative income poverty at 50 per cent, 60 per cent and 70 per cent of median household income. At the lowest income threshold we find that while over six out of ten of those above the income line are deprived on none of the dimensions this falls to one in four for those below the income line. The corresponding figures for being deprived on two or more dimensions are one in seven and two out of five. For deprivation on three or more dimensions the respective figures are one in fifteen and one in five. Finally, the number deprived on all five dimension is less than 1 per cent for the non-income poor and less than 2 per cent for the income poor. Thus adopting the most stringent income threshold we find a strong association between income poverty and level of multiple deprivation. However, even if we adopt the most minimal definition of multiple deprivation of being above the threshold on two or more dimensions we find that the majority of those below 50 per cent of median income do not meet the criterion. If we extend the criterion to require deprivation on three or more dimensions only one in five of the income poor can be considered to be multiply deprived.

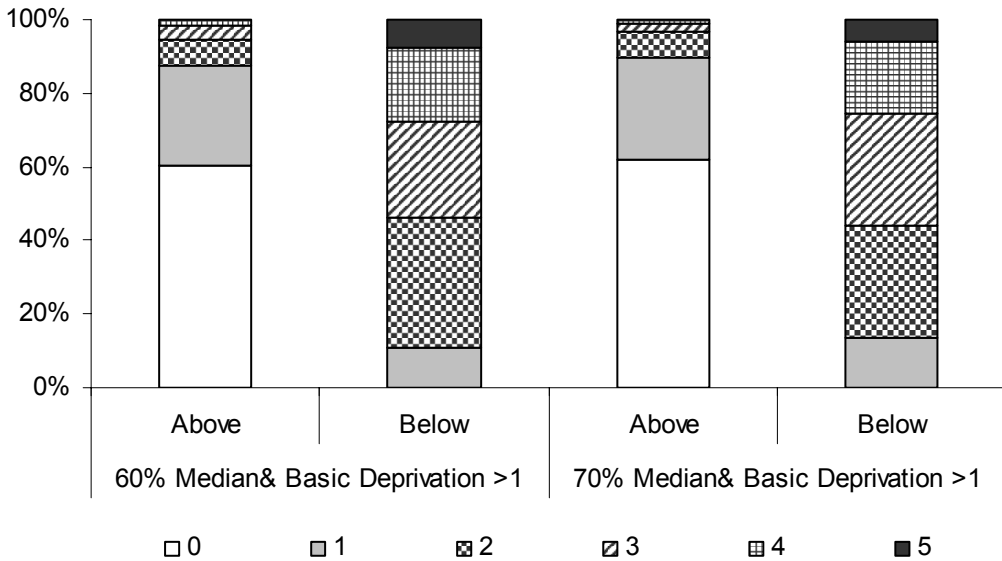
The results at 60 per cent and 70 per cent of median income are remarkably similar to those at the 50 per cent line. The implications of this finding is that multiple deprivation levels for those located between 50 per cent and 70 per cent of median income are not substantially lower than for those below the 50 per cent line. Across this range income has rather weak discriminatory capacity in relation to level of multiple deprivation. Thus, while shifting one's focus from those above the 50 per cent line to those above the 70 per cent line leads to a halving of the number deprived on three or more dimensions from 7 per cent to 3 per cent. The respective figures for being below the 50 per cent and 70 per cent median income lines are 22 per cent and 21 per cent. As a consequence the capacity of income poverty to discriminate between the multiply deprived and others is actually greater at higher income thresholds with the disparity ratio increasing from three to one at the 50 per cent line to four to one at the 60 per cent line and finally seven to one at the 70 per cent line. This analysis again shows incomes right at the bottom of the income distribution are rather poor predictors of multiple deprivation. The transient nature of such incomes and/or the fact that those reporting them can draw on other sources of resources helps account for this apparent paradox. Further up the income distribution, reported incomes more accurately capture permanent income and consequently the capacity to identify those multiply deprived is improved significantly.

**Figure 4.11: Multiple Deprivation by Income Poverty**



In Figure 4.12 we focus on the impact of consistent poverty at both the 60 per cent and 70 per cent lines. The deprivation component of these measures is the 11-item basic deprivation measure with a threshold of 2+. At the 60 per cent line 7 per cent are consistently poor and 9 per cent at the 70 per cent line. Since by definition the consistently poor are experiencing basic deprivation they cannot score less than one on the multiple deprivation scale. However, it is still of considerable interest to document their levels of multiple deprivation and to see how these contrast with the outcomes for those not experiencing such poverty. From Figure 4.12 we can see that almost nine out of ten of those consistently poor at 60 per cent of median income report deprivation on two or more dimensions and just above one out of two do so on three or more dimensions. Thus, even if we were to exclude basic deprivation from our calculations one out of two would be deprived on two or more of the remaining dimensions. Furthermore, over one in four are deprived on four or more dimensions and almost one in thirteen on all five. Those consistently poor at the 60 per cent line constitute a group where multiple deprivation, in the minimal sense, is the norm. Even where it is defined more rigorously it is still a majority experience.

**Figure 4.12: Multiple Deprivation by Consistent Poverty**



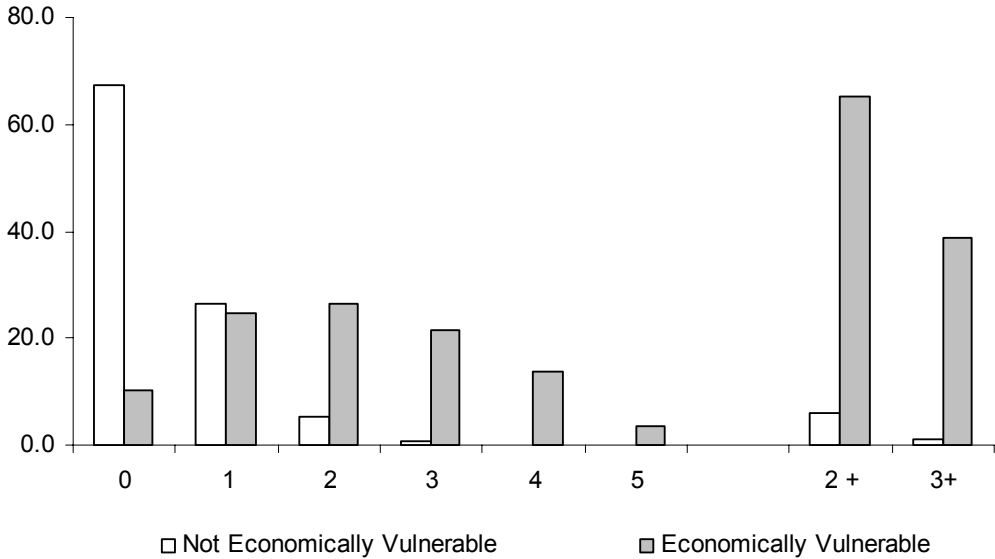
Among those not consistently poor at this level we find that about 60 per cent avoid deprivation on all five dimensions, and one-quarter are deprived on one dimension only. About 12 per cent are deprived on two or more dimensions, and 5 per cent on three or more. The findings in relation to consistent poverty at the 70 per cent line are strikingly similar. Those experiencing basic deprivation on two or more items and located between the 60 per cent and 70 per cent median lines are clearly experiencing levels of multiple deprivation very similar to those experiencing consistent poverty. The percentage deprived on three or more dimensions is slightly higher for those above the 60 per cent consistent poverty line than for those above the 70 per cent line. However, contrary to expectations, the figure for those below the consistently poverty 70 per cent line is fractionally higher than for those below the corresponding 60 per cent line.

It is clear then, that even allowing for the fact that basic deprivation plays a role in both measures, consistent poverty is a much more powerful discriminator in terms of experience of multiple deprivation than income poverty and this is particularly true if the point of reference is the 50 per cent income line.

Making use of the analysis carried out in Chapter 3 where we identified a proportion of the population that can be identified as economically vulnerable, we can also explore the relationship between multiple deprivation and vulnerability. From Figure 4.13 we can see that almost 70 per cent of the non-vulnerable avoid deprivation on all five dimensions, while just over one-quarter are deprived on only one dimension and no one is deprived on all five. Only 7 per cent are deprived on at least two dimensions, and less than 1 per cent on at least three. For the economically vulnerable

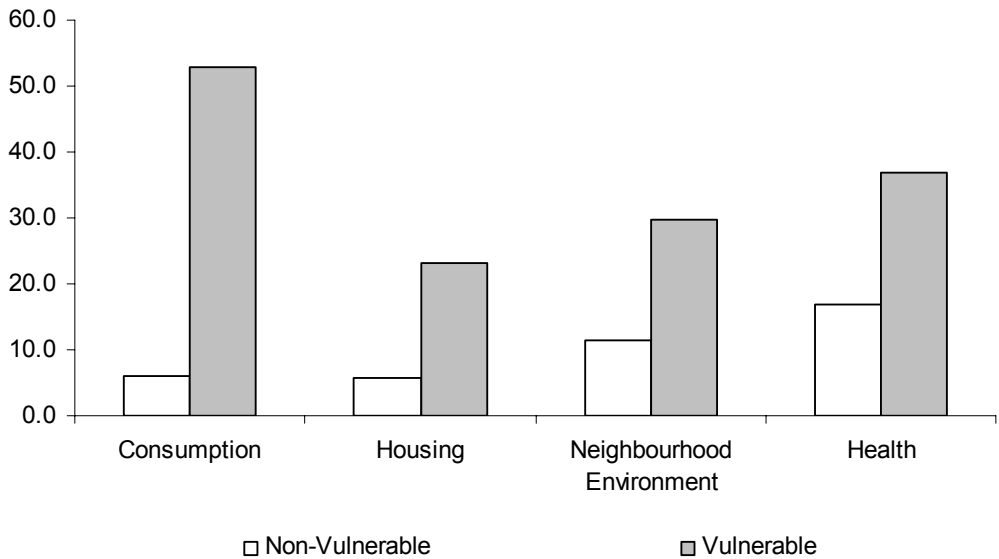
class only 10 per cent are insulated from deprivation on any deprivation dimension, while between 20-25 per cent are deprived on one, two or three dimensions of deprivation. Thus, almost two-thirds of the economically vulnerable are reporting deprivation on at least two dimensions of deprivation, and 40 per cent are reporting deprivation on at least three dimensions. The vulnerable and non-vulnerable classes are sharply polarised in terms of their exposure to multiple deprivation.

**Figure 4.13: Multiple Deprivation by Economic Vulnerability**



In Figure 4.14, leaving aside basic deprivation, we look at the specific dimensions on which the economically vulnerable are deprived. In relation to consumption deprivation we find that while only 6 per cent of the non-vulnerable are above the consumption deprivation threshold of 4+, this is true of 53 per cent of the vulnerable. Similarly, for housing the number lacking a housing item rises from 6 per cent for the former to 23 per cent for the latter. For neighbourhood environment the difference is less sharp but still clear-cut with 12 per cent of the non-vulnerable class and 30 per cent of the vulnerable reporting two or more problems. Finally, while 17 per cent of the former report two or more health problems this rises to 37 per cent for the latter. Thus, while the scale of differentiation is not nearly as sharp as in relation to basic deprivation, the deprivation levels for the vulnerable are much higher than for the non-vulnerable across the additional four dimensions.

**Figure 4.14: Type of Deprivation Experienced by Economic Vulnerability**



**4.6  
Conclusions**

In this chapter we have explored the relationship between the five dimensions of deprivation identified in Chapter 2, and the extent of multiple deprivation. The correlations between these dimensions are in every case positive. Those who experience one form of deprivation are more likely to experience the other forms of deprivation. However, the level of association between pairs of dimensions is variable and in many cases relatively modest. The ability to predict deprivation on a particular dimension through knowledge of an individual’s position on another is relatively limited.

To establish levels of multiple deprivation, we saw that it was necessary to go beyond overall degree of association to establish the degree of overlap at the extremes of deprivation. To do so it was necessary to define appropriate thresholds, in a manner that necessarily involves making judgements that involve an arbitrary element. Having set thresholds so that in each case a significant minority of the population lies above them, we then calculated levels of multiple deprivation. A majority of respondents are below the deprivation thresholds on all five dimensions, while less than 1 per cent are deprived on all five dimensions. About 8 per cent are above the critical level on three or more dimensions. Multiple deprivation emerges as a powerful predictor of subjective economic pressures. Income poverty is significantly associated with multiple deprivation, but the degree of overlap is far from being perfect. Furthermore, the degree of overlap is no greater at 50 per cent of median income than at 60 per cent or 70 per cent. Consistent poverty is more powerful than economic vulnerability in predicting multiple deprivation, while being in the economic vulnerable class is in turn more powerful than being below relative income poverty lines.

# 5. LEVELS AND PATTERNS OF MULTIPLE DEPRIVATION: AN ANALYTIC APPROACH

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## 5.1 Introduction

In Chapter 4 we discussed the extent and nature of multiple deprivation in Ireland, from a descriptive perspective. In this chapter we adopt a more formal statistical approach, which involves extending the notion of vulnerability we developed earlier (in Chapter 3) to the analysis of multiple deprivation. This will allow us to take into account that individuals and socio-economic groups may be differentiated not only by their current exposure to particular patterns of deprivation, but also by differential patterns of risk in relation to deprivation. We begin in Section 5.2 by applying latent class models to the five dimensions of deprivation analysed in Chapter 4. Section 5.3 looks at the implications of the results from this exercise for overall levels of multiple deprivation. Section 5.4 looks at the relationship between the different profiles of multiple deprivation estimated in this fashion and relative income poverty, consistent poverty and vulnerability. Section 5.5 analyses the relationship between these different multiple deprivation profiles and a range of household and individual socio-economic characteristics, and Section 5.6 summarises the findings of the chapter.

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## 5.2 Profiles of Multiple Deprivation

In Chapter 3 we employed latent class technique to identify the proportion of the population that can be categorised as economically vulnerable by using income poverty, broad basic deprivation and a subjective measure of economic pressure. Now we use the same technique but this time we use the five dimensions described earlier. In Table 5.1 we report results for latent class models running from



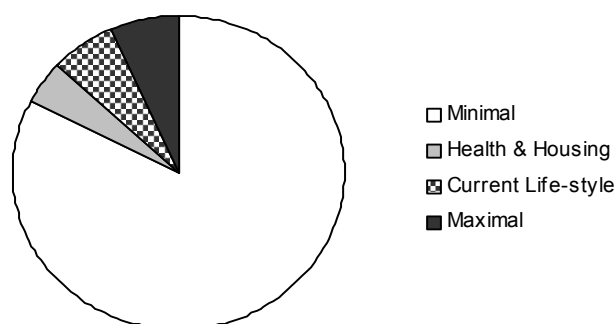
two to five classes. The goodness of fit indicators indicate clearly that the four-class model provides the best fit.<sup>50</sup>

**Table 5.1: Goodness of Fit of Latent Class Models of Multiple Disadvantage**

	Number of Classes			
	2	3	4	5
$L^2$	278.85	120.22	14.32	11.76
Reduction in Independence Model $G^2$	94.3	98.3	99.2	99.8
Degrees of Freedom	20	14	8	2
% of case misclassified	3.10	1.64	0.39	0.34
BIC	88.56	-13.68	-62.20	-7.36

As set out in Figure 5.1 below, the model identifies four underlying clusters of individuals exhibiting distinct profiles. The nature of these profiles is set out in Figure 5.2. The first cluster, which accounts for 83 per cent of the population, we label the “minimal deprivation” group. They display extremely low probabilities of being above the relevant threshold on the basic consumption deprivation and housing dimensions. The only dimensions on which they face any risk of being above the deprivation threshold are neighbourhood environment and household reference person health status. In the former case 11 per cent are above the cut-off point and in the latter 16 per cent. The second cluster that we label “health and housing deprived” make up 4 per cent of the population. They also display an extremely low level of basic deprivation but the figure for consumption deprivation rises to 16 per cent and that for neighbourhood environment to 24 per cent. However, it is their deprivation levels for health and housing that are distinctive, with the respective figures being 52 per cent and 66 per cent.

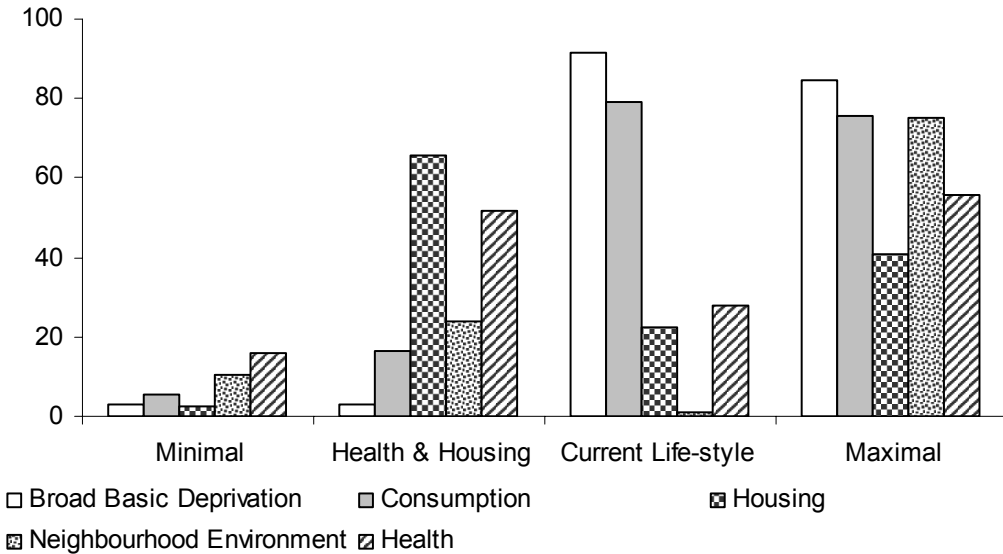
**Figure 5.1: Size (in Per Cent) of Clusters of Multiple Deprivation**



<sup>50</sup> The four-class model misclassifies only 0.4 per cent of cases, which is very satisfactory, and the  $G^2$  value of 14.3 and 8 degrees of freedom also shows a fit that is acceptable in strict statistical terms. The BIC value for this model is also lower than for any of the alternatives.

The third group, which we label the “consumption deprived”, make up 6 per cent of the population. They are marked out by the fact that their risks of being above the broad basic and consumption deprivation thresholds are substantially higher than for the remaining dimensions, with 92 per cent above the former cut-off point and 79 per cent above the latter. The relevant figures fall to 28 per cent, 23 per cent and 1 per cent respectively for health, housing and neighbourhood environment. The final group, which makes up 7 per cent of the population, we label as “maximally deprived”. This group experiences a substantial level of deprivation in relation to housing, with 41 per cent being above the threshold but this is actually their lowest reported level. For health the figure rises to 56 per cent, and for neighbourhood environment to 75 per cent. For consumption deprivation the figure is 76 per cent and finally it rises to 85 per cent for broad basic deprivation. The maximally deprived are effectively a sub-set of the economically vulnerable group we identified and analysed in Chapter 3.

**Figure 5.2: Pattern of Multiple Deprivation**

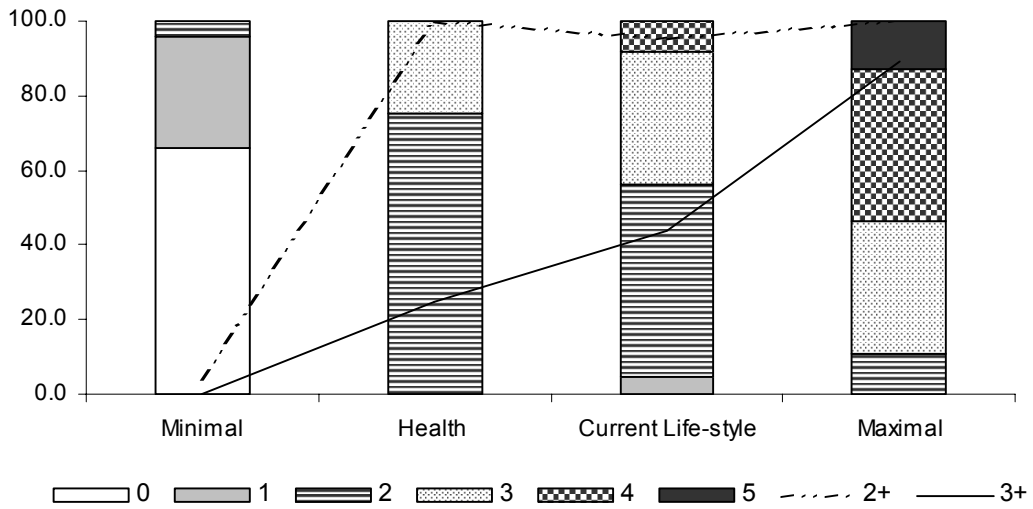


### 5.3 Levels of Multiple Deprivation

In Figure 5.3 we look at how these risk levels translate into overall levels of multiple deprivation. For those individuals located in the minimal disadvantage cluster two-thirds are located below the threshold on all five dimensions and almost all the remainder are deprived on only one dimension. None of the health/housing-dominated group are entirely insulated from deprivation. Three-quarters are deprived on two dimensions and the remainder on three dimensions. For the current life-style dominated group there is a shift in the distribution. Over nine out of ten of this group are deprived on two or more dimensions and over four out of ten are

above the cut-off point on three or more. Finally, the unique position of the maximally deprived group is shown by the fact that none score one or less; nine out of ten score three or more; just over half score four or more and one out of eight are deprived on all five dimensions.

**Figure 5.3: Current Levels of Multiple Deprivation by Vulnerability to Multiple Deprivation Profile**



In Table 5.2 we look in more detail at the implications of being in one rather than another of these multiple deprivation categories in terms of individual deprivation items. For the minimally deprived group, the level of deprivation in relation to the broad basic consumption and housing dimensions rises above 5 per cent only in the case of a PC, a dish washer, car and annual holidays and in no case does the figure exceed 15 per cent. The level of difficulty in relation to neighbourhood environment ranges from 2 per cent in relation to pollution to 12 per cent in relation to crime/violence or vandalism. For the health dominated group the risk level does not exceed 5 per cent in relation to basic deprivation and the rate for the secondary items exceeds 15 per cent in only a small number of cases and peaks at 30 per cent in the case of annual holidays. Housing deprivation levels increase significantly and quite dramatically in the case of central heating where over nine out of ten report such enforced absence. Neighbourhood environment problems are also much higher than for the minimally deprived group with similar high levels in the case of pollution and leaking roof/damp walls where it rises to two out of five. In the case of health approximately two-thirds report difficulties on each of the indicators. For the current life-style dominated group levels of deprivation on the basic deprivation items range from 17 per cent in the case of adequate heating to 70 per cent for family or friends for a meal. Such levels

are consistently a great deal higher than for the first two groups. This holds true also in relation to the consumption items. One in four lack a video, and around one-third lack a stereo, a CD, a telephone. Almost one in two lack a car and around two-thirds lack a PC or a dishwasher. The maximally deprived group are overall in a similar situation as the current life-style dominated group in relation to the basic deprivation and consumption items. A sharp contrast emerges, however, in relation to the neighbourhood dimension where a large majority of the maximally deprived report deprivation running from almost 60 per cent in relation to noise to just over 90 per cent with regard to pollution. Finally, this group report also a high level of deprivation in relation to health close to the one experienced by the health and housing dominated group.

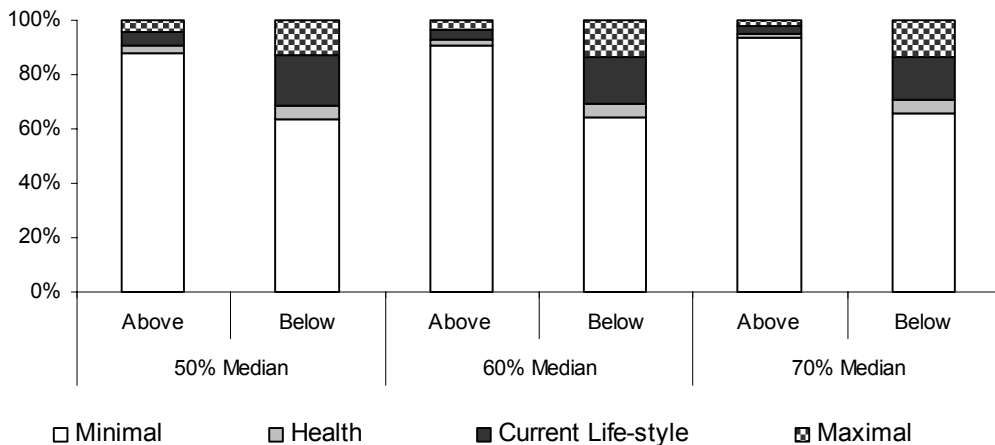
**Table 5.2: Deprivation on Selected Individual items by Vulnerability to Multiple Deprivation Clusters**

<b>Clusters</b>	<b>Minimal %</b>	<b>Health and Housing %</b>	<b>Current Life-style %</b>	<b>Maximal %</b>
<b>Broad Basic Deprivation</b>				
Shoes	0.8	0.0	26.0	26.4
Presents	1.3	1.0	30.2	26.3
New Clothes	1.5	2.7	32.5	42.0
Adequate Heating	0.8	1.2	17.7	27.0
Evening Out	3.7	6.0	61.2	51.5
Family or friends for meal	3.8	5.2	69.8	61.1
<b>Consumption</b>				
Video	0.8	8.6	24.6	18.2
Stereo	1.2	7.4	29.1	19.0
CD	1.4	5.2	28.7	24.2
Telephone	2.1	8.5	33.4	25.8
PC	6.2	16.7	64.2	50.7
Car	9.2	14.2	46.3	43.3
Dish washer	7.4	26.1	67.5	54.3
Holidays	14.0	33.6	80.8	83.8
<b>Housing</b>				
Hot water	0.6	18.2	3.9	7.4
Washing Machine	0.2	2.5	5.2	6.1
Central heating	2.4	92.4	27.7	41.1
<b>Neighbourhood Environment</b>				
Pollution	2.4	41.1	27.7	92.4
Crime, Violence or Vandalism	12.1	18.6	6.8	61.6
Noise	9.4	22.1	7.2	57.6
Leaking Roof/damp walls	9.5	40.1	14.8	59.7
<b>Health</b>				
Fair to Bad	15.3	56.9	33.4	51.8
Chronic Illness or condition	20.1	65.3	32.6	61.7
Limited activities due to a health problem	17.2	68.3	31.1	55.5

## 5.4 Multiple Deprivation Profile by Income Poverty, Consistent Poverty and Economic Vulnerability

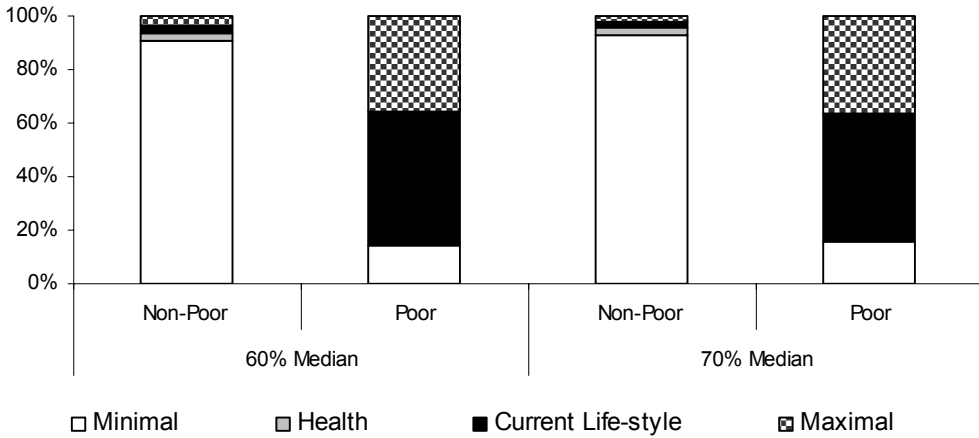
We now look at the relationship between these multiple deprivation categories and income poverty, consistent poverty and economic vulnerability. Figure 5.4 focuses on income poverty, and shows that the multiple deprivation profile differs for those above versus those below the income threshold, but perhaps not by as much as would have been anticipated. Almost 90 per cent of those above the 50 per cent income line are in the minimally deprived cluster, compared to two-thirds of those below the line, and a similar pattern is seen with the 60 per cent and 70 per cent threshold. Thus, the ability of income poverty to discriminate between those in the minimal deprivation cluster and all others is relatively modest, while using a lower rather than a higher income threshold does not improve this discrimination.

**Figure 5.4: Multiple Deprivation Profile by Income Poverty**



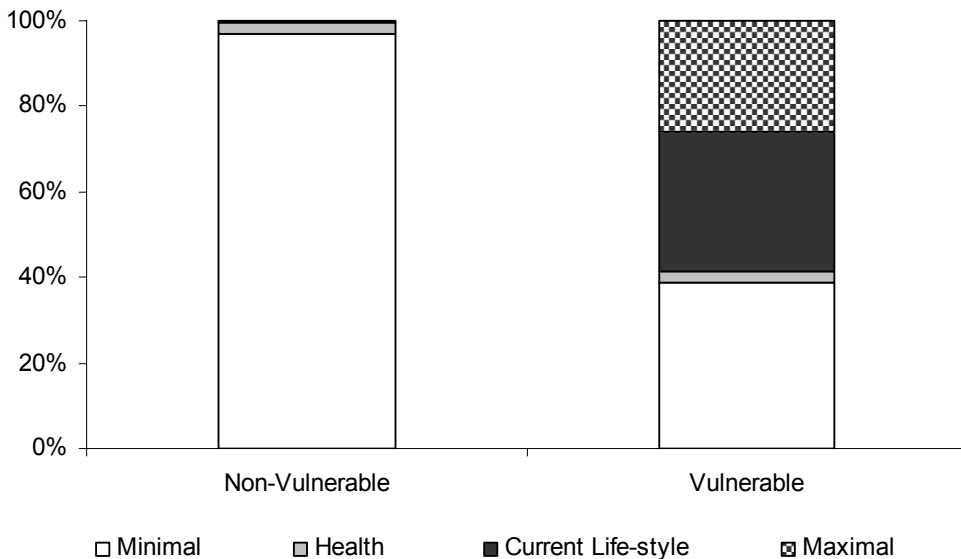
In Figure 5.5 we examine the relationship between consistent poverty and multiple deprivation. The results for those who are not consistently poor are rather similar to those above the income poverty thresholds, with 90 per cent in the minimal deprivation cluster and the rest are divided between the other deprivation categories. However, the consistently poor show high levels of deprivation, with half in the consumption deprived cluster and over one-third in the maximally deprived group. Only one in seven are in the minimally deprived group and none are in the health and housing deprived group. The consistent poverty measure thus offers much sharper differentiation in terms of deprivation profiles than the relative income measures. This remains true when alternative income thresholds of 50 per cent, 60 per cent or 70 per cent of the median are used in constructing the consistent poverty measure.

**Figure 5.5: Multiple Deprivation Profile by Consistent Poverty**



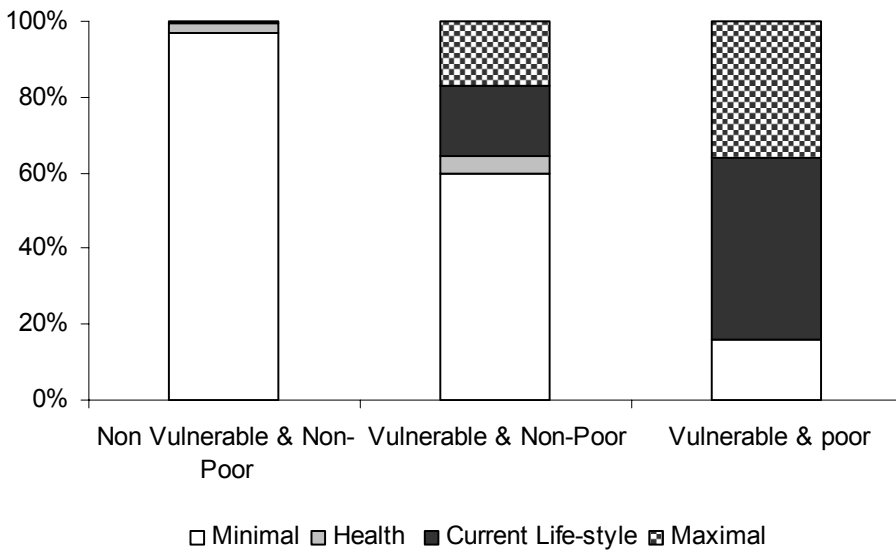
In Figure 5.6 we look at the relationship between our multiple deprivation categorisation and the division into economically vulnerable versus non-vulnerable as developed in Chapter 3. We see that almost all the non-vulnerable group are located in the minimally deprived cluster, whereas only four out of ten of the vulnerable are in that category. Almost one-quarter of the vulnerable are in the consumption deprived cluster and one in six in the maximally deprived group. The economically vulnerable are thus sharply differentiated from the rest of the sample in terms of their multiple deprivation profile.

**Figure 5.6: Multiple Deprivation Profile by Economic Vulnerability**



In Figure 5.7 we extend our analysis by cross-classifying consistent poverty (with the 70 per cent of median income threshold) with economic vulnerability to produce a three-category classification – since there is no one who is both non-vulnerable and consistently poor – and look at the relationship of this classification to multiple deprivation risk profiles. We can see that almost all the non-vulnerable and non-poor are located in the minimally deprived cluster. Focusing on the vulnerable and non-consistently poor group, we find that while 60 per cent are in the minimal deprivation category, about 20 per cent are in each of the consumption deprivation and maximal deprivation clusters. Turning to the group that are both vulnerable and consistently poor, a further sharp contrast is observed with only about 15 per cent in the minimal deprivation category, almost half in the consumption deprived category and just over one-third in the maximally deprived group. Thus income poverty, economic vulnerability and consistent poverty form a hierarchy in terms of their ability to predict multiple deprivation.

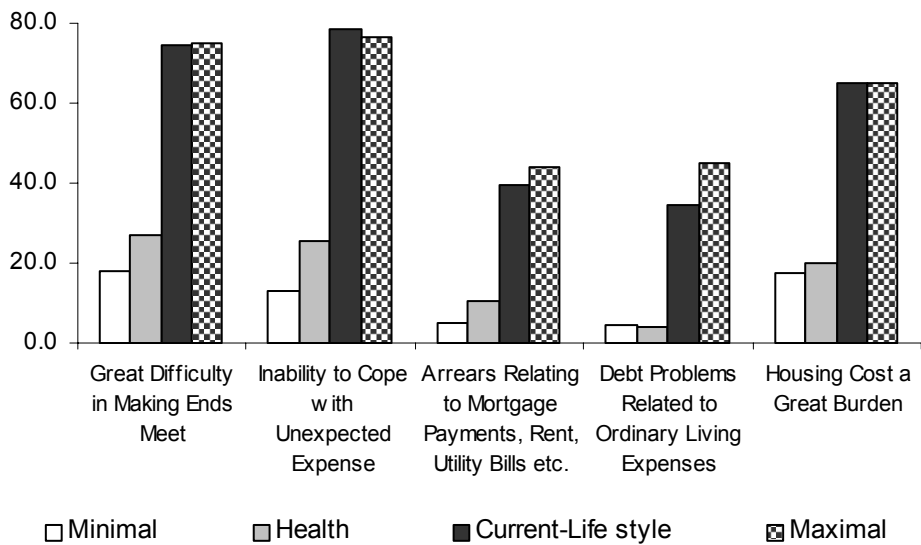
**Figure 5.7: Multiple Deprivation Profile by Consistent Poverty (70 Per Cent Median) and Economic Vulnerability**



Finally, in order to see the pressures associated with multiple deprivation, in Figure 5.8 we examine its relationship to a number of indicators including difficulty in making ends meet; inability to cope with unexpected expenses; arrears and debt problems relating to ordinary living expenses; and experience of housing cost as a burden. For those located in the minimally deprived group, the percentage reporting such problems never rises above 18 per cent and for two of the indicators on two occasions falls below 5 per

cent. For those experiencing health and housing deprivation these percentages increase significantly for two items, namely “difficulty in making ends meet” and “inability to cope with unexpected expenses” with about 25 per cent reporting such problems. When we move to the consumption deprived group a sharp increase occurs for all five items, with three-quarters reporting difficulty in making ends meet and inability to cope with unexpected expenses; two-thirds experiencing housing cost as a great burden; and one-third reporting debt problems. For the maximally deprived group the reported levels of these problems are all high, generally similar to the consumption deprived group but with higher proportions reporting debt problems and arrears. So the minimally deprived and the health and housing deprived are quite similar in their relatively low level of economic pressures, while the consumption deprived and the maximally deprived are at the other end of the economic stress continuum.

**Figure 5.8: Economic Pressures by Multiple Deprivation Profile**



## 5.5 Multiple Deprivation and Household Characteristics

Having traced out the scale and patterning of multiple deprivation, what we then need to know – both to understand the causal processes involved and to design policy responses – is what type of people fall into the different categories. Here we undertake an initial analysis of the relationship between different deprivation profiles and household characteristics, pursuing these relationships in more depth in Chapter 6. In Table 5.3 we set out the results of a multinomial regression which takes the minimally deprived group as the reference point, and looks at how each of the other multiple deprivation groupings we have defined differ from that group in terms of specific characteristics.

Focusing first on the maximally deprived group, we see that self-employment reduces the likelihood that the household is in this



category. Not being active in the labour market, and particularly illness/disability and unemployment, are strongly associated with being in this group. Being single, separated/divorced or a lone parent also heighten the risk. Age has a rather modest effect, but those in the 30-49 year age group have the highest risk levels. Education has the expected impact, with the odds ratio for lower secondary education having a value of two and that for primary education only rising to almost four.

**Table 5.3: Multinomial Regression of Multiple Deprivation Typology on Household Socio-Economic Characteristics**

	Maximal Deprivation		Current Life-Style		Health & Housing Deprivation	
	Exp (B)	Sig.	Exp (B)	Sig.	Exp (B)	Sig.
Employment Status						
Self-employed with employees	0.369	*	0.450	*	0.949	n.s.
Self-employed without employees	0.491	*	0.900	n.s.	3.170	*
Farmer	0.340	**	0.690	n.s.	0.671	n.s.
Employee – unemployed in previous 12 months	1.580	*	1.382	n.s.	2.003	*
Ill/Disabled	7.957	***	4.628	n.s.	4.063	*
Unemployed	4.993	***	4.568	***	2.698	***
In Education	1.671	***	7.799	n.s.	1.562	**
Home-Duties	2.363	***	2.806	***	1.797	**
Retired	1.166	n.s.	0.986		1.538	*
Marital Status						
Single	2.349	***	1.450	**	3.117	***
Widowed	0.958	n.s.	0.985	n.s.	1.247	n.s.
Separate/Divorced	2.403	***	1.824	***	2.747	***
Number of Children > 2	0.927	n.s.	1.274	*	0.576	**
Lone Parent	1.722	***	2.334	***	0.523	*
Age Group						
Under 30 years	1.040	n.s.	0.759	n.s.	0.442	*
30-49 years	1.519	*	1.136	n.s.	0.279	***
50-64 years	0.735	*	0.996	n.s.	0.274	***
Education						
Primary	3.650	***	3.177	***	2.948	***
Lower Secondary	1.935	***	3.152	***	1.570	*
Urban Location	1.101	n.s.	0.529	***	0.357	***
Tenure						
Private Tenant	2.704	***	4.060	***	1.487	n.s.
Local Authority Tenant	4.509	***	5.643	***	6.186	***
Local Authority Tenant* Urban Location	1.250	n.s.	0.823	*	0.437	***
Nagelkerke R <sup>2</sup>	0.326					
Reduction in Likelihood Ratio	3,00.1					
Degrees of Freedom	69					

Focusing on the current life-style deprived group, we find that farming and being self-employed with employees make it less likely one is in this group. Apart from retirement, labour market inactivity is positively associated with location in this category, with the highest odds ratio of almost 8:1 being observed for being in education and the lowest of 2.8:1 for home duties. The presence of more than two children in this house increases the risk level, and the same is true of separation/divorce and lone parenthood.

Looking finally at the group which is deprived on health and housing, these are distinguished from the minimally deprived by the higher probability for self-employed without employees and a lower risk for farmers. Being single or separated/divorced carries a higher risk, as does experience of unemployment in the previous twelve months. The household reference person being aged 65 years or over substantially increases the risk of such deprivation and the risk level is particularly low in the 30-64 year age range. As with the other two categories, lower levels of education are associated with a heightened probability of deprivation.

Urban-rural location and being a public sector tenant interact in a fashion that differs across the three deprivation categories. Being a private tenant has no statistically significant impact on being in the health and housing deprived group. However, it is strongly associated with being in the current life-style deprived and the maximally deprived groups; the respective odds ratios are 4:1 and almost 3:1. For homeowners urban location is negatively associated with membership of the health and housing and the current life-style deprived categories, but has little impact on the risk of maximal deprivation. Being a public sector tenant has a strong positive effect on each type of risk. In the case of the current life-style deprived, and most particularly the health and housing deprived, the impact of being a public sector tenant is much weaker for urban tenants. For maximal deprivation, on the other hand, the impact is stronger for those in urban households, although the difference is not statistically significant.

In Table 5.4 we look at the composition of households categorised by the multiple deprivation typology in terms of their tenure type and urban versus rural location. We see that the vast majority of homeowners are found in the minimally deprived group, but those in rural households are slightly more likely to be found in the health and housing deprivation and the current life-style deprived groups, while those in urban households have a higher risk of maximal deprivation. Three-quarters of urban private tenants and a slightly smaller number of their rural counterparts are found in the minimally deprived cluster. For urban local authority tenants, about half are the minimal group but the proportion in the maximally deprived group rises to 30 per cent. About 15 per cent are in the current life-style deprived category, but the number in the health and housing group is extremely modest. The pattern for rural local authority tenants is rather different: about 40 per cent are in the

minimally deprived category, but the proportion in the maximally deprived group is much lower than in the urban case. On the other hand, twice as many of the rural local authority tenants are in the current life-style deprived group and four times as many are in the health and housing deprived category.

**Table 5.4: Distribution of Forms of Multiple Deprivation by Tenure and Urban-Rural Location**

	Urban			Rural		
	Home Owner	Private Tenant	Public Sector Tenant	Home-Owner	Private Tenant	Public Sector Tenant
	%	%	%	%	%	%
Minimal	93.3	75.5	50.9	89.8	68.5	40.3
Housing and Health	0.8	1.7	2.5	2.9	3.0	10.6
Current Life-style	1.9	12.8	16.3	4.6	16.4	31.5
Maximal	4.0	9.9	30.3	2.7	12.1	17.6
% of Population	26.9	4.1	3.7	56.1	4.2	4.9

## 5.6 Conclusions

Having described the pattern of multiple deprivation in Ireland in Chapter 4, this chapter has employed a more formal statistical approach which first applied latent class models to the five dimensions of deprivation previously distinguished. Four distinct multiple deprivation profiles were identified. The first, which we have labelled minimally deprived, makes up over four-fifths of the population. Membership of this group implies a minimum risk of deprivation on any of the five dimensions of deprivation. The second group, representing 4 per cent, is exposed to significant risk levels in relation to health and housing deprivation. The other two clusters, which contain 6 per cent and 7 per cent of the population respectively, are the current life-style deprived and the maximally deprived categories. The former records a particularly high level of risk of deprivation on the basic and consumption deprivation dimensions, while the latter exhibits relatively high risks of deprivation on all five dimensions.

Our analysis reveals that income poverty is a relatively modest predictor of people's multiple deprivation risk profile. In contrast, economic vulnerability and, more particularly, consistent poverty are powerful predictors of one's location on the multiple deprivation risk profile.

We then analysed the relationship between these different multiple deprivation profiles and a range of household and individual socio-economic characteristics. We found that the current life-style deprived and the maximally deprived are sharply differentiated from the minimal cluster in terms of labour force status; education; marital status; lone parenthood and being a private tenant. One factor differentiating these two groups is that for homeowners and private tenants, rural location is much more strongly associated with current life-style deprivation than maximal deprivation. Furthermore, while the combination of rural location and public sector tenancy is more likely to be associated with

membership of the current life-style deprivation group than the maximal cluster, the opposite is true for the combination of urban location and public sector housing. Membership of the health and housing deprivation cluster is associated with being aged 65 or over, being self-employed or a farmer, and being in a rural location.

# 6. MULTIPLE DISADVANTAGE AND DEPRIVATION

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## 6.1 Introduction

Up to this point we have focused largely on different types of deprivation seen as outcomes, on different ways of grouping people in terms of those outcomes, and on how these relate to each other. In previous chapters we have also looked at whether groups of households categorised in terms of outcomes – for example, the economically vulnerable or the maximally deprived – are distinctive in terms of some important socio-economic characteristics. In this chapter our aim is to explore in some depth how such characteristics, and in particular certain combinations of characteristics, seem to influence poverty and deprivation outcomes. The extent to which an accumulation of disadvantages in terms of such characteristics can have profound consequences for life-chances has been the focus of a great deal of discussion, using terms such as multiple and cumulative disadvantage. These discussions are often based on anecdotal evidence or what is known about experience elsewhere, so here our aim is to investigate these issues empirically with micro-data for a large representative sample of Irish households. This highlights, among other things, that while combinations of extreme disadvantage may indeed be associated with greatly heightened risks of poverty and deprivation, the numbers affected may be rather smaller than commonly assumed.

We begin in Section 6.2 with a discussion of what we mean by multiple disadvantage in this context. Section 6.3 focuses on the relationship between our measure of economic vulnerability (developed in Chapter 3) and different aspects of disadvantage. Section 6.4 carries out a similar analysis but with consistent poverty as the focus. Section 6.5 examines the relationship between being in the maximally deprived group (in terms of the deprivation typology developed in Chapter 5) and those different aspects of disadvantage. Section 6.6 concentrates on a very specific combination of disadvantages, namely being a lone parent and working full-time in the home, and how it relates to all three outcome measures. Finally, Section 6.7 summarises the findings of the chapter.

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## 6.2 Understanding Multiple Disadvantage

By disadvantage, in this context, we mean characteristics that constitute risk factors serving to increase the probability that one will experience adverse outcomes. Unemployment or low levels of education, from this perspective, are disadvantages that one would expect to substantially increase the likelihood of poverty, economic vulnerability or multiple deprivation. Clearly unemployment and low education are themselves outcomes seen from another perspective; and the causal processes influencing those outcomes are themselves of absolutely critical concern. Here, though, our interest is not in understanding how unemployment and low education themselves come about, but rather in how they give rise to – or at least are associated with – adverse outcomes across a range of dimensions, including but advancing well beyond low income.

We will see that the various socio-economic factors associated with deprivation are often rather more weakly correlated with each other than is often assumed. This means, in turn, that the process of accumulation of disadvantages is somewhat weaker than might have been imagined. Thus, not every lone parent has poor educational qualifications, and not all unemployed people are drawn from lower social classes. Even where there are high levels of correlation between the risk factors, it should be stressed at the outset that two further conditions are required for the emergence of significant disadvantage, and these may not be fulfilled. First, a combination of risks may not produce sharper differentiation or predict higher levels of disadvantage, if some risk factors have their impact solely through their influence on others that are themselves being taken into account. If for example unemployment, is strongly correlated with other variables already included in the model then its inclusion will do little to improve our predictive ability. The combined effect is one of “redundancy” rather than accumulation. (Heath, 1981)

Even where there is evidence of cumulative impact, such strengthening of the patterns of association may not be reflected in an increase in risk of deprivation for the multiple disadvantaged groups. This will be the case where overlapping advantages effectively insulate certain groups from the risk of deprivation, but multiple disadvantage does not produce a corresponding escalation in risk levels for such groups. In that case the impact of the former will be reflected in increasing odds ratios in the absence of evidence for the operation of processes of multiple disadvantage. Finally, even where we demonstrate the operation of such processes, the possibility remains that the absolute numbers fulfilling the multiple conditions may be so small as to make the phenomena of modest substantive interest. In establishing multiple disadvantage, we must address the issue of accumulation or redundancy at the extreme. The question that must be posed is whether it is possible to identify sub-groups whose overlapping characteristics lead to distinctive levels of deprivation or, as a consequence of redundancy or large-scale overlap in the membership of disadvantaged groups, are we largely identifying the same set of people captured by the original variables?

In order to establish the existence of multiple disadvantage, it is necessary to establish a cumulative pattern of association, to demonstrate that such a pattern leads to escalating risk levels and show that some significant number of persons are exposed to such risks.

The outcome of such an analysis is also crucially dependent on which characteristics or risk factors are included. Here we focus on a range of characteristics that previous research suggests may heighten the risk of poverty and deprivation, that distinguish what may be thought of as ‘high-risk’ groups:

- Being ill or disabled.
- Being unemployed.
- Working full-time in the home (‘In Home Duties’).
- Being a lone parent.
- Being in a household where there are 3 or more children.
- Being aged 65 years or over.

Since different individuals in the household may have different characteristics and it would be too complex to include them all in the analysis, we focus on the characteristics of the ‘household reference person’ (the person responsible for meeting the housing costs) in categorising individuals according to these groups.

In addition to the impact of being in one of these groups, we are particularly interested in the effects of:

- Having a low level of education.
- Being semi-skilled or unskilled in social class terms.

Both social class and education capture deep-seated background factors that might be expected to predispose people towards adverse outcomes, over and above the characteristics listed above – either directly, or by influencing whether people become unemployed, ill, or in a lone parent household or large family. In categorising by social class we employ a ‘dominance’ approach, taking into account the situation of both partners (where present). We use the recently devised European Socio-economic Classification and distinguish the “routine occupations” class that comprises those in semi-skilled or unskilled occupations, which comprises 23 per cent of persons. In the case of education we distinguish between those with primary education or less and all others, which identifies 29 per cent of persons as being in households with such a level of education. The analytic approach adopted is to first look at the effects of the other characteristics and to then look at the additional effects of being in the routine non-manual class and the low education category.

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### 6.3 Economic Vulnerability and Multiple Disadvantage

The first step in our analysis is to look at the relationship between economic vulnerability – the measure developed and employed in Chapter 3 – and the various risk factors described in the previous section. We do this via a series of logistic regressions with vulnerability as the dichotomous dependent variable and the risk factors as explanatory variables. The results are set out in detail in the Appendix to this chapter (Table A6.1). While these are of

considerable interest in themselves, our principal interest here is in their implication for the impact of *multiple* disadvantage on economic vulnerability. This is brought out in Table 6.1. The first column shows the estimated effects of the various risk factors before education and social class are introduced into the model. We see that both lone parents and the ill/disabled, who each represent approximately 5 per cent of the population, both have odds ratios of about 7:1. Those in home duties have an odds ratio of less than 3:1 but constitute 15 per cent of the population. We then focus on those who are in the lower social class category and have the “risky” characteristics. The next column shows that in each case the odds of being vulnerable are considerably higher. For the ill/disabled the increase is from 7:1 to over 11:1, and for other categories the disparity increases by a factor of 2. However, as can be seen for column four, these significantly increased risks apply to substantially smaller numbers in the population. Those in home duties and in this social class constitute about 5 per cent of the population; older people in the routine non-manual class constitute 4 per cent of the population but their relative disadvantage is modest; and none of the other groups constitutes more than 2 per cent of the population.

**Table 6.1: Relative Risk of Economic Vulnerability by Level of Multiple Disadvantage**

Household or HRP Characteristics	Initial Effect		+ HRP Routine Occupation		HRP Routine Occupation + Primary Education or Less +	
	Odds Ratios	% of Population	Odds Ratios	% of Population	Odds Ratios	% of Population
Ill/Disabled	7.3	4.7	11.4	2.0	15.0	1.3
Unemployed	5.8	6.0	7.0	2.3	12.2	1.6
In Home Duties	2.7	15.4	5.5	4.6	9.8	2.8
Lone Parent	6.7	5.2	15.6	1.5	31.5	0.6
3+ Children	1.8	9.2	4.3	1.9	8.4	0.8
65+ years	1.0	14.5	2.2	3.7	2.9	3.4

If we then focus in even more narrowly on those who have the characteristic in question, are in the routine non-manual class and have low education, the odds of being vulnerable are again heightened considerably. The increase for lone parents, for example, is over 30:1. So it is clear that multiple disadvantages lead to a significant increase in economic vulnerability. However, the numbers exposed to such cumulative disadvantage and associated heightened levels of vulnerability are now extremely modest. For lone parents, where the relative risk level is greatest the group constitute just more than one half of 1 per cent of the population. Thus the strikingly high inequalities we observe as a consequence of accumulating disadvantages apply to groups of modest size. Even



combining groups with distinctively high odds ratios, this would cover no more than about 6 per cent of the population.

In Table 6.2 we show the consequences of such accumulating disadvantages for actual vulnerability risk levels (rather than odds ratios). For the ill/disabled category we observe a steady rise in economic vulnerability as one goes from the overall group to those with low education and then to those who additionally are drawn from the routine occupations class. The vulnerability levels are respectively 50 per cent, 53 per cent and 63 per cent. In this case it is clear that it is education rather than social class that provides the additional discriminatory power. The situation in relation to unemployment is somewhat different and little increase in the level of vulnerability is observed as disadvantages accumulate. This is true despite the fact, that as we observed earlier, the corresponding odds ratios do show an upward trend. The latter trend is clearly a consequence of the impact of accumulating advantages rather than disadvantages. In every other case we observe a gradual increase in the risk level. This peaks at close to 80 per cent for lone parents and at close to 50 per cent for those in home duties, those in households with three or more children and the unemployed. For those in households headed by a person aged 65 years and over it rises from 18 per cent to 30 per cent. However, in all cases except illness/disability, the addition of information in relation to educational qualifications adds relatively little in the way of predictability when the impact of social class has already been taken into account. Even with a small number of variables we see the impact of redundancy in relation to absolute levels of vulnerability. Once again it is important to keep in mind that these distinctively high risk levels apply to rather small sub-groups of the population.

**Table 6.2: Risk of Economic Vulnerability by Level of Multiple Disadvantage**

Household/HRP Characteristics	Initial Effect		HRP Routine Occupation		HRP Routine Occupation + Primary Education or Less +	
	% Vulnerable	% of Population	% Vulnerable	% of Population	% Vulnerable	% of Population
Ill/Disabled	49.9	4.7	52.9	2.0	63.0	1.3
Unemployed	46.9	6.0	47.2	2.3	48.1	1.6
In Home Duties	33.4	15.4	43.1	4.6	45.8	2.8
Lone Parent	62.9	5.2	70.4	1.5	77.2	0.6
3+ Children	30.4	9.2	44.8	1.9	48.6	0.8
65+ years	17.6	14.5	28.4	3.7	29.9	3.4

## 6.4 Consistent Poverty and Multiple Disadvantage

We now shift our attention to the impact of multiple disadvantage on consistent poverty rather than economic vulnerability. Once again the detailed results from a series of regressions relating consistent poverty to the set of risk factors are given in the Appendix (Table A6.2), and here we focus on the key findings and their implications. Table 6.3 first shows the increased risk associated with each of the characteristics, in terms of odds ratios. Being ill or disabled is seen to have the most pronounced effect among the factors included. When we hone in on those in the routine non-manual social class, the odds ratios are considerably higher – disparities in relation to consistent poverty are accentuated. When we then focus on those who in addition have a low level of education a further substantial increase in the odds ratio is seen, except for older people.

**Table 6.3: Relative Risk of Consistent Poverty by Level of Multiple Disadvantage**

Household/HRP Characteristics	Initial Effect		HRP Routine Occupation		HRP Routine Occupation + Primary Education or Less +	
	Odds Ratios	% of Population	Odds Ratios	% of Population	Odds Ratios	% of Population
Ill/Disabled	10.4	4.7	13.9	2.0	19.6	1.3
Unemployed	8.2	6.0	19.6	2.3	28.4	1.6
In Home Duties	4.5	15.4	10.7	4.6	17.2	2.8
Lone Parent	4.4	5.2	13.3	1.5	24.3	0.6
3+ Children	1.0	9.2	3.1	1.9	5.3	0.8
65+ years	1.1	14.5	3.6	3.7	8.1	3.4

In Table 6.4 we look at the consequences of these accumulating levels of disadvantage for variation in the absolute levels of consistent poverty. Focusing first on the initial impact of the key groups we have focused on we find that the highest rate of consistent poverty is observed for lone parents; with the relevant figure being 35 per cent. This rises to 44 per cent when the condition relating to social class is imposed and to 54 per cent when the additional educational requirement is specified. For unemployment there is also a gradual increase from 28 per cent to 35 per cent to 40 per cent. For number of children the respective figures are 13 per cent, 18 per cent and 28 per cent and for older people 8 per cent, 11 per cent and 24 per cent. The exception to this trend is illness and disability where the addition of the class and education variables leads to only a modest increase in the rate of consistent poverty.

**Table 6.4: Risk of Consistent Poverty by Level of Multiple Disadvantage**

Household/HRP Characteristics	Initial Effect		HRP Routine Occupation		HRP Routine Occupation + Primary Education or Less +	
	% Consistently Poor	% of Population	% Consistently Poor	% of Population	% Consistently Poor	% of Population
Ill/Disabled	31.0	4.7	31.4	2.0	33.5	1.3
Unemployed	28.3	6.0	35.4	2.3	39.7	1.6
In Home Duties	19.5	15.4	26.1	4.6	27.4	2.8
Lone Parent	34.8	5.2	44.1	1.5	54.4	0.6
3+ Children	12.6	9.2	18.3	1.9	28.3	0.8
65+ years	8.1	14.5	11.0	3.7	24.1	3.4

**6.5  
Maximal  
Deprivation and  
Multiple  
Disadvantage**

In this section we repeat the foregoing exercise but with the dependent variable now being maximal deprivation, defined as a high probability of being deprived across the five life-style dimensions that we identified earlier. Table 6.5 shows a very high odds ratio for the ill or disabled and the unemployed, high ones for those in home duties and lone parents, but not for large families or older people. Honing in on the routine manual social class leads to larger odds ratios in each case, while once again low education leads to a further increase in the odds ratio in every case.

**Table 6.5: Relative Risk of Maximal Disadvantage by Level of Multiple Disadvantage**

Household/HRP Characteristics	Initial Effect		HRP Routine Occupation		HRP Routine Occupation + Primary Education or Less +	
	Odds Ratios	% of Population	Odds Ratios	% of Population	Odds Ratios	% of Population
Ill/Disabled	9.1	4.7	12.6	2.0	17.3	1.3
Unemployed	7.1	6.0	11.2	2.3	15.1	1.6
In Home Duties	3.3	15.4	6.8	4.6	10.6	2.8
Lone Parent	3.9	5.2	9.7	1.5	17.2	0.6
3+ Children	0.7	9.2	1.8	1.9	3.0	0.8
65+ years	0.8	14.5	1.8	3.7	2.1	3.4

In Table 6.6 we set out the absolute levels of maximal deprivation associated with that pattern of relativities. Focusing on the initial effect, we see that the highest rates are observed for the ill/disabled and lone parent groups where one in four experiences this pattern of deprivation. The introduction of social class raises the

figure to one in three for the latter group but has little effect for the former. With the addition of the education variable the figure rises close to four out of ten for both groups. For home duties we observe a gradual increase from 12 per cent to 17 per cent to 19 per cent. For the unemployed, number of children and age, however, the addition of the social class and education variables has no impact on the level of economic vulnerability.

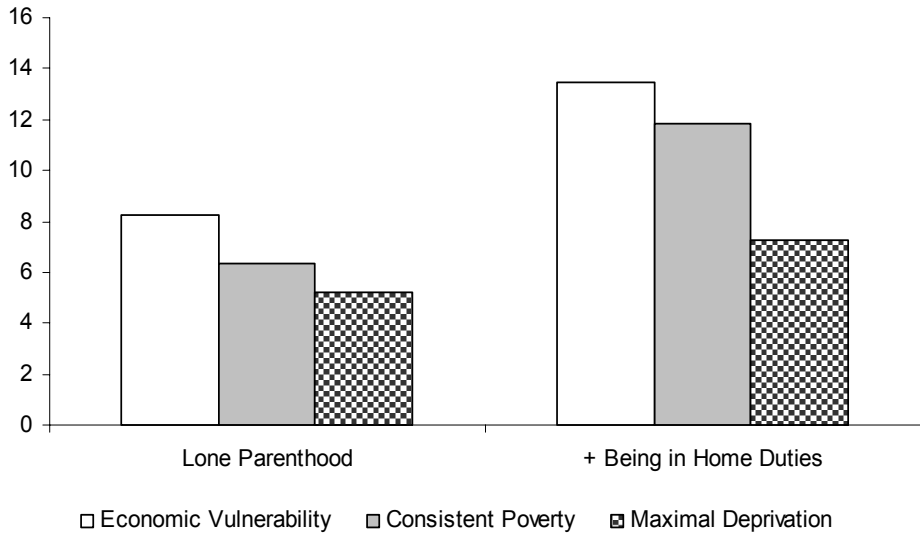
**Table 6.6: Risk of Maximal Deprivation by Level of Multiple Disadvantage**

Household/HRP Characteristics	Initial Effect		HRP Routine Occupation		HRP Routine Occupation + Primary Education or Less +	
	% Maximal Deprivation	% of Population	% Maximal Deprivation	% of Population	% Maximal Deprivation	% of Population
Ill/Disabled	26.4	4.7	27.3	2.0	37.1	1.3
Unemployed	20.7	6.0	23.0	2.3	22.4	1.6
In Home Duties	11.8	15.4	16.5	4.6	18.6	2.8
Lone Parent	25.2	5.2	33.4	1.5	39.4	0.6
3+ Children	7.4	9.2	8.5	1.9	8.4	0.8
65+ years	6.2	14.5	8.4	3.7	8.9	3.4

**6.6  
The Combined  
Impact of Lone  
Parenthood and  
Being in Home  
Duties**

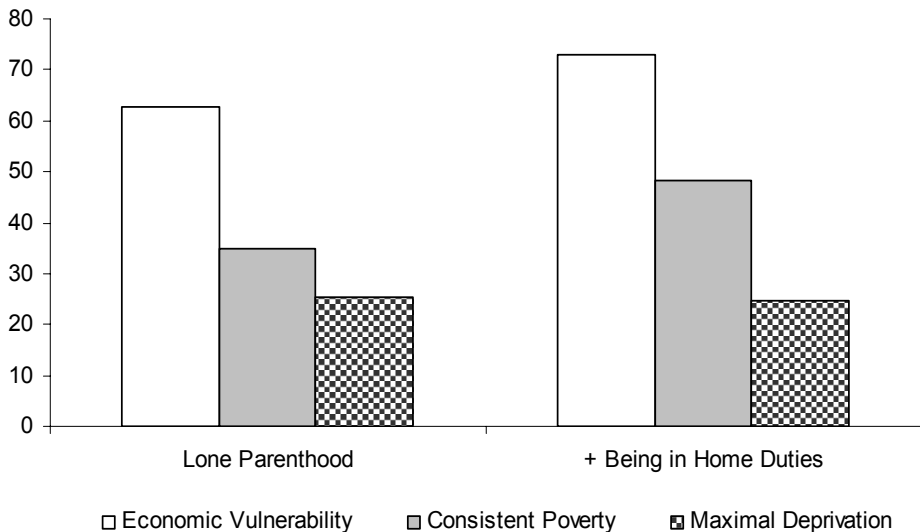
One further pattern of multiple disadvantage that merits particular attention is the combination of the household reference being both a lone parent and in full-time home duties. In our sample 2.4 per cent of persons are in such households that fulfil both conditions. Adding the social class condition reduces this to 0.7 per cent and the further addition of the educational qualification requirement brings it down to 0.2 per cent. In what follows, therefore, we focus solely on the combination of lone parenthood and home duties. In Figure 6.1, for economic vulnerability, consistent poverty and maximal deprivation, we show the odds ratio first for lone parenthood on its own and then for the combination of such parenthood and being in home duties. In each case lone parenthood is a substantial predictor of deprivation. The odds on being economically vulnerable are 8 times higher for those in lone parent households. For consistent poverty the odds ratio is 6:1 and for maximal deprivation 5:1. However, in every case where lone parenthood overlaps with being in home duties the level of deprivation rises substantially. For economic vulnerability the odds ratio rises to 13:1. For consistent poverty it almost doubles to 12:1. Finally, for maximal deprivation there is a more modest increase from 5:1 to 7:1.

**Figure 6.1: Relative Risks (Odds Ratios) of Economic Vulnerability, Consistent Poverty and Maximal Deprivation by Lone Parenthood and Being in Home Duties**



In Figure 6.2 we look at the consequences of these patterns of inequality for absolute levels of deprivation. Being in a lone parenthood household is associated with striking levels of deprivation. Almost two out of three are economically vulnerable; one in three are consistently poor and one-quarter experience maximal deprivation. Even so when we focus on the subset that are in home duties we observe a significant escalation for two out of three of our indicators. For economic vulnerability the figure rises to close to three out of four and for consistent poverty it increases to almost one in two. However, in the case of maximal deprivation there is no significant change.

**Figure 6.2: Risks (as Per Cent) of Economic Vulnerability, Consistent Poverty and Maximal Deprivation by Lone Parenthood and Being in Home Duties**



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## 6.7 Conclusions

In this chapter we have shown that taking into account additional advantages in relation to social class and educational qualifications does lead us to observe significantly increased levels of deprivation; whether the indicator on which we focus is economic vulnerability, consistent poverty or heightened risk of being exposed to a pattern of maximal deprivation. Over and above current membership of currently disadvantaged groups, broader socio-economic status and background are important determinants of both levels and patterns of deprivation. However, while an accumulation of socio-economic advantages is reflected in deprivation outcomes, the relationship between such disadvantage and deprivation outcomes is somewhat less powerful and substantively significant than might be imagined. One reason for this is that influences such as social class and educational background are more powerful discriminators among groups that are not otherwise disadvantaged. Similarly, there is a variety of instances where the fact that a high correlation exists between disadvantages means that most of the information about an individual's situation is already captured in variables that are already included in our analysis and we experience a situation of redundancy rather than accumulation. Finally, even where a number of influences are correlated and predictive of deprivation outcomes, the number of people simultaneously experiencing such patterns of multiple disadvantage may be extremely modest. Multiple disadvantage leading to multiple deprivation is a phenomenon for which our analysis provides clear support. However, the emergence of multiple deprivation on a broad scale is diluted by the complexity of the processes underlying the emergence of variable patterns of socio-economic deprivation. As a consequence where we observe such deprivation in its most extreme forms, the proportion of the population enduring its consequences tends to be more modest than is often imagined.

# APPENDIX TO CHAPTER 6

This appendix sets out the results of logistic regressions relating first economic vulnerability, then consistent poverty, and then multiple deprivation to the set of risk factors/characteristics described in Section 6.2. In entering these characteristics as explanatory variables, the omitted reference category in the case of employment status is those who are not unemployed, ill/disabled or in home duties; for the other variables the comparison is with the rest of the population. We first include the set of characteristics other than social class and education as dichotomous explanatory variables. We then incorporate the dichotomous social class variable, and also allow for interaction between social class and the other variables. Finally, in the third column, we add low education to the model. Table A6.1 shows the regression results when economic vulnerability is the dependent variable, Table A6.2 the corresponding results when consistent poverty is the dependent variable, and finally Table A6.3 shows the results when multiple deprivation is the variable to be explained.

**Table A6.1: Logistic Regression of Economic Vulnerability and Multiple Disadvantage**

	Odds Ratios	Sig.	Odds Ratios	Sig.	Odds Ratios	Sig.
	(i)		(ii)		(iii)	
<b>Household/ Household Reference Person Characteristics</b>						
<b>Labour Force Status</b>						
Ill/Disabled	7.355	***	8.534	***	6.901	***
Unemployed	5.833	***	6.264	***	5.666	***
In Home Duties	2.726	***	2.390	***	2.293	***
Lone Parent	6.692	***	6.774	***	7.360	***
3+ Children	1.800	***	1.858	***	1.973	***
Age 65 + years	0.961	n.s.	0.964	n.s.	0.678	*
Routine Semi & Non-Skilled Social Class			2.299	***	1.922	
Primary Education or Less					2.226	***
<b>Interactions</b>						
Unemployment *Routine Occupations			0.486	***	0.501	***
Ill/Disabled* Routine Occupations			0.583	***	0.507	***
Nagelkerke R <sup>2</sup>	0.186		0.207		0.227	
Reduction in Log-Likelihood	1,605.0		190.2		194.7	
Degrees of Freedom	6		9		10	
N	13,026					

**Table A6.2: Logistic Regression of Consistent Poverty and Multiple Disadvantage**

	Odds Ratios	Sig.	Odds Ratios	Sig.	Odds Ratios	Sig.
<b>Household/ Household Reference Person Characteristics</b>						
<b>Labour Force Status</b>						
III/Disabled	10.403	***	13.926	***	11.178	***
Unemployed	8.203	***	6.823	***	5.875	***
In Home Duties	4.453	***	3.726	***	3.554	***
Lone Parent	4.403	***	4.632	***	5.040	***
3+ Children	1.014	n.s.	1.078	***	1.105	***
Age < 65 years	1.148	n.s.	1.256	*	1.681	***
Routine Semi & Non-Skilled Social Class			2.874	***	2.368	
Primary Education or Less					2.038	***
<b>Interactions</b>						
III/Disabled* Routine Occupations			0.347	***	0.364	***
Nagelkerke R <sup>2</sup>	0.192		0.223		0.236	
Reduction in Log-Likelihood	1,152.7		187.381		83.586	
Degrees of Freedom	6		9		10	
N	13.026					

**Table A6.3: Logistic Regression of Maximal Deprivation and Multiple Disadvantage**

	Odds Ratios	Sig.	Odds Ratios	Sig.	Odds Ratios	Sig.
<b>Household/ Household Reference Person Characteristics</b>						
<b>Labour Force Status</b>						
III/Disabled	9.051	***	10.646	***	8.653	***
Unemployed	7.074	***	7.657	***	6.999	***
In Home Duties	3.327	***	2.727	***	2.589	***
Lone Parent	3.908	***	3.920	***	4.219	***
3+ Children	0.703	*	0.729	*	0.734	*
Age 65 + years	0.779	n.s.	0.725	*	0.506	***
Routine Semi & Non-Skilled Social Class			2.487	***	2.123	
Primary Education or Less					1.919	***
<b>Interactions</b>						
III/Disabled* Routine Occupations			0.476	***	0.490	***
Unemployed* Routine Occupations			0.588	***	0.528	***
Nagelkerke R <sup>2</sup>	0.146		0.162		0.172	
Reduction in Log-Likelihood	641.3		72.5		47.0	
Degrees of Freedom	6		9		10	
N	13.026					



# 7. CONCLUSIONS AND POLICY IMPLICATIONS

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## 7.1 Understanding Multi- dimensionality

In studying poverty and social exclusion there is an increasing tendency to move away from a unidimensional focus on income towards incorporating multidimensionality, both in conceptualisation and empirical investigation. Although the value of a multidimensional approach is now becoming widely recognised, it is generally pursued in practice on a fairly *ad hoc* basis. Furthermore, the underlying rationale for adopting such an approach is often not spelt out and its implications followed through. This study has sought to contribute both to conceptual clarity and to developing the ways in which multidimensionality is incorporated into empirical analysis of poverty.

We began with a broad-ranging discussion of why and when a multidimensional approach might be helpful, and what it might involve. We argued for maintaining a clear distinction between *conceptualising*, *measuring* and *understanding* and *responding* to poverty and social exclusion. Adopting a multidimensional approach to measurement is not in itself a virtue, one needs to show that such an approach leads to a more accurate identification of the poor or socially excluded and/or to a superior understanding of such processes or capacity to respond to them. Our discussion highlighted that non-monetary indicators obtained at micro-level help to do a better job than income on its own in identifying the poor, and also directly capture the multifaceted nature of poverty and exclusion. Which means in turn, that the prospects of understanding these phenomena and designing effective policy responses are improved.

In subsequent chapters we proceeded to address some central issues in the empirical investigation of multiple deprivation at micro level, using data for Ireland on a range of non-monetary indicators from the new EU-SILC. This involved analysis of:

- how the available non-monetary indicators allow different dimensions of deprivation to be distinguished, and how one dimension – ‘basic’ deprivation – is best captured and combined with income to measure ‘consistent poverty’;
- how a broader group that is not necessarily experiencing such basic deprivation but is more exposed and vulnerable than others – that we label the “economically vulnerable” – can be identified, and who they are;

- how the five dimensions of deprivation we identify allow us to describe the scale of multiple deprivation, and analyse the relationship between such deprivation, low income and consistent poverty;
- and finally, how various risk factors or disadvantages are related to each other and to the various outcome measures developed and employed in this study – in particular, how commonly they go together and represent an accumulation of disadvantages.

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## 7.2 Income Poverty and Consistent Poverty

In Chapter 2 we commenced our empirical exploration of the value of a multidimensional approach by comparing income poverty and consistent poverty approaches. The starting point for the latter was an analysis that identified five dimensions of life style deprivation. Consistent poverty was defined as being below a specified relative income threshold and experiencing enforced deprivation in relation to two or more of the basic deprivation items. The set of items included in this index covers a broader range than the original basic deprivation set incorporated in the NAPS consistent poverty indicators and provides a more comprehensive coverage of exclusion from family and social life. It is important that a national social indicator should enjoy broad legitimacy and the revised set of items seems more appropriate today than the earlier basic set, which appeared to reflect a more frugal era.

The limitations of relative income poverty lines is illustrated by the fact that across a range of such measures, even when we take income poverty into account, being above or below the basic deprivation threshold is a powerful predictor of subjective economic stress. Furthermore, whether we focus on overall levels of basic deprivation or on individual items, there is no evidence that, within the range running from 50 per cent to 70 per cent of median income, moving from a more generous to a more stringent threshold increases the association of income poverty with such deprivation. On the other hand, the sharply contrasting profiles in relation to each of the basic deprivation items observed for the consistently poor versus all others provides considerable reassurance that our procedures allow us to capture the type of group which we wish to designate as poor. Furthermore, those defined as consistently poor differ from others not only in terms of income and their basic deprivation profile but also in terms of exposure to a range of life-style deprivations and subjective economic pressures. Thus, consistent with the multidimensional approach, the new indicators of consistent poverty, in addition to explicitly incorporating a wider range of items, and being less dependent on any single indicator, also provide a sharper contrast between the consistently poor and all others in terms of dimensions relating to consumption deprivation, health, housing and neighbourhood environment.

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### 7.3 Economic Vulnerability

In Chapter 3 we broadened our concern with the experience of deprivation to encompass a concern not only with current exposure to deprivation but also with heightened risk of such exposure. In particular, we focused on multidimensional vulnerability profiles relating to income poverty, basic deprivation and subjective economic stress. The notion of vulnerability involves a focus not simply on current stresses and strains but also on insecurity and exposure to risk and shock. The development of such measures has been motivated both by a concern to develop point in time proxies for exposure to persistent deprivation and the desire to develop a genuinely multidimensional perspective. Using statistical procedures that allow us to identify underlying clusters of individuals, we identified two groups that are sharply distinguished by levels of income poverty, subjective economic stress and, most particularly, exposure to basic deprivation involving enforced absence of rather basic life-style items. The economically vulnerable group constitutes one-fifth of the population; a figure that is almost identical to the proportion below the 60 per cent median income poverty threshold. However, little more than one in two of the income poor are also vulnerable. Those vulnerable but not income poor are very similar to those who are both in terms of their reports of economic pressures while those poor and non-vulnerable are very close to those who are neither. The income poor but non-vulnerable are more likely than the vulnerable but non-poor to be older, farmers or retired, home owners and to be located in rural areas. It would seem likely that such groups can draw resources that insulate them from a range of economic pressures. If our concern is with economic marginalisation, it would seem appropriate to focus on the economically vulnerable rather than the income poor.

The consistently poor are drawn entirely from the economically vulnerable cluster. In arriving at conclusions relating to levels of deprivation in Ireland, our judgement relating to those economically vulnerable but not consistently poor is crucial. In fact this group exhibit a profile of disadvantage intermediate to those characterising the consistently poor and the non-vulnerable. However, they resemble the consistently poor much more closely in terms of their experience of economic pressures than objective resources and living standards. The consistently poor are also sharply distinguished from the vulnerable but non-poor in terms of their socio-economic profile; being substantially more likely to be inactive in the labour market, more poorly educated and less likely to be homeowners. Thus, there is no compelling argument for merging them with the consistently poor.

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## 7.4 A Descriptive Account of Multiple Deprivation

In Chapter 4 we explored the relationship between the five dimensions of deprivation that we identified. In every case there is a positive association. Those who experience one form of deprivation are more likely to experience another. However, the level of correlation varies significantly across pairs of dimensions and the magnitude of association is, on average, rather modest. When we focus on absolute overlap, rather than degree of association, it is clear that only a very small number of people experience multiple deprivation in its extreme form. Even when we employ a less stringent definition the number above such a threshold remains modest; with only one in twelve being above the relevant threshold on three or more dimensions. However, where such deprivation is observed it is a powerful predictor of subjective economic stress.

While income poverty is associated with multiple deprivation, the overlap is very far from being perfect and moving from a less to a more stringent definition of income poverty does nothing to improve the fit. In contrast a very strong relationship is observed between economic vulnerability and multiple deprivation and even more so between such deprivation and consistent poverty.

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## 7.5 Levels and Patterns of Multiple Deprivation

In Chapter 5 we extended our analysis to provide an analytic treatment of patterns of deprivation that encompasses basic deprivation, consumption deprivation, housing, health and neighbourhood environment. Once again employing latent class analysis we identified four distinct clusters within the overall population. The first, which we characterised as experiencing *minimal* deprivation, were exposed to a low level of risk across all five dimensions. This group constitutes over four-fifths of the population. The second group, whom we refer to as *health and housing* deprived, make up 5 per cent of the population. The third group to whom we apply the label *current life-style deprived* involves 6 per cent of the population and they are distinguished by extremely high risk-levels in relation to both the basic deprivation and consumption dimensions. Finally, the *maximally deprived* group who display comparatively high-risk levels in relation to all dimensions make up 7 per cent of the population.

The risk of being found in the health and housing cluster is associated with being aged 65 years or over; labour market inactivity; being a farmer; not being married; lack of educational qualifications and with local authority tenancy and, in particular, rural tenancy. Current life-style deprivation is most strongly associated with labour market inactivity other than retirement; lone parenthood; having less than a Leaving Certificate; being a tenant and, in particular a rural local authority tenant. For maximal deprivation labour market inactivity and, in particular, illness/disability are powerful predictors. Education is again a strong influence. Being a local authority tenant and, in particular, an urban tenant is strongly associated with such deprivation. The distinctive role of urban public sector tenancy lies

not in its association with economic vulnerability as such but rather in the manner in which the economically vulnerable are partitioned between different forms of multiple deprivation.

The argument for widespread economic vulnerability or marginalisation in post-Celtic Tiger Ireland is undermined by the fact that four-fifths of the population are insulated from such vulnerability and exhibit a multi-dimensional profile involving relatively minimal deprivation. The one-fifth of the population that is characterised by such vulnerability can be divided almost equally into two groups. The first comprises the consistently poor who are quite distinctive in terms of their levels of exposure to income poverty, basic deprivation and subjective economic pressures. The remaining segment of the vulnerable cluster while reporting comparable levels of subjective economic stress are substantially more favourably placed in terms of both poverty and deprivation. Finally, within the economically vulnerable class just over 5 per cent of the population are both income poor and are characterised by a deprivation profile that involves a relatively high risk of exposure to deprivation on each of the five dimensions that we have considered. What we observe is what we have described as a set of tiered levels of deprivation. While we have no desire to minimise the degree of inequality in life chances involved in such patterns of differentiation nor to minimise the stresses and strain experienced by those exposed to these forms of deprivation, we are forced to conclude that both the levels and depth of such deprivation are a good deal more modest than suggested by radical critics of the Irish experience of economic growth.

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## 7.6 Multiple Disadvantage and Multiple Deprivation

In Chapter 6 we shifted our focus from the accumulation of deprivation outcomes to the manner in which objective socio-economic characteristics that constitute 'risk factors' combine and the consequences of such overlapping disadvantaged for various deprivation-related outcomes. Our analysis showed that, over and above current membership of those vulnerable groups that are targeted by the social welfare system, broader socio-economic status and background, as reflected in education and social class, are important determinants of both levels and patterns of deprivation. However, while an accumulation of socio-economic advantages is reflected in deprivation outcomes, the relationship between such disadvantage and deprivation outcomes is somewhat less powerful and substantively significant than might be imagined.

One reason for this is that influences such as social class and educational background are more powerful discriminators among groups that are not otherwise disadvantaged. Similarly, there are a variety of instances where the fact that a high correlation exists between disadvantages means that most of the information about an individual's situation is already captured in variables that are already included in our analysis and we experience a situation of redundancy rather than accumulation. Finally, even where a number of

influences are correlated and predictive of deprivation outcomes, the number of people simultaneously experiencing such patterns of multiple disadvantage may be extremely modest. Multiple disadvantage leading to multiple deprivation is a phenomenon for which our analysis provides clear support. However, its emergence on a broad scale is diluted by the complexity of the processes underlying the emergence of variable patterns of socio-economic deprivation. As a consequence where we observe it in its most extreme forms the proportion of the population enduring its consequences tends to be more modest than is often imagined.

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## 7.7 Policy Implications

The methods of capturing multidimensionality developed here, and the patterns found when applying them to Irish data, have major implications for how we think about policy and monitor progress in promoting social inclusion. In the first place, the need to move beyond income in identifying those most in need is reinforced; in seeking to do so, the value of the consistent poverty measure using a revised set of basic deprivation items – now incorporated into the National Action Plan for Social Inclusion – is underpinned. The consistently poor represent a distinctively deprived group, and clearly should be accorded a very high priority indeed in framing anti-poverty policy. However, policy cannot be directed solely at that group if it is to be successful. The other key group to whom attention must be paid is not those on low incomes who are characterised by neither basic deprivation or multiple deprivation but those who are at risk of being so exposed. While most people are now insulated from vulnerability to economic exclusion, the one in five who are vulnerable encompass the consistently poor but represent an additional grouping that also needs to be at the forefront in framing strategy. Inability to sustain employment plays a central role in such vulnerability. It is also true though that at any point in time those in employment are a great deal more likely to experience vulnerability to economic exclusion than consistent poverty as such. The influence of factors such as home ownership, education and social class background reflect the structural nature of the disadvantages involved and the policies required to tackle them. As well as addressing the problems of those exposed to consistent poverty, social policy must also seek to reduce the heightened levels of risk experience by the vulnerable and operate in a preventative manner so as to not only facilitate exits from consistent poverty but also provide buffers against falling into that state.

The fact that multiple deprivation across the different dimensions of deprivation identified is relatively rare acts as a counter to the sometimes despairing tone of commentary focusing on a so-called ‘underclass’ comprehensively detached from the mainstream: the evidence does not suggest that this concept has significant ‘purchase’ in an Irish context, whatever about the USA. Rather, in addition to tracking and understanding consistent poverty and broader vulnerability, it will also be important to capture those

experiencing exposure to, and heightened risk of, very particular types of deprivation – in terms of health and housing, for example – and address the factors which led them into that situation. In research that is ongoing we will seek to understand how such exposure varies and develops across the life cycle.

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