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Resources, Deprivation and the Measurement of Poverty*

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ABSTRACT
Ringen has advocated the use of both income and deprivation criteria in identifying those excluded from society due to lack of resources, a widely accepted definition of poverty. We illustrate with Irish data how this might be done, paying particular attention to how appropriate indicators of deprivation are to be selected. The results show that employing both income and deprivation criteria rather than income alone can make a substantial difference to both the extent and composition of measured poverty. This highlights the restrictive nature of poverty conceived in terms of exclusion rather than minimum rights to resources.

INTRODUCTION

This paper is concerned with the conceptualisation and measurement of poverty. The methods widely used in developed countries to measure poverty have been robustly criticised by Ringen (1987, 1988) for their reliance on income poverty lines, on the basis that income is not a reliable measure of poverty. He advocates the use of both income and deprivation criteria in identifying those who are excluded from their society due to lack of resources. Here we explore the relationship between income, wider resources, and indicators of deprivation, using data for a large sample of (Irish) households. Following Ringen's logic, we illustrate how both resources and deprivation measures could be used to identify the poor, the objective being to bring out the implications of adopting such an approach. In doing so, particular attention is paid to the problem of selecting indicators of deprivation which are

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appropriate for this purpose. The results show that employing both income and deprivation criteria rather than income alone can make a substantial difference to both the extent and composition of measured poverty. These results highlight the importance of Atkinson's distinction between a standard of living conception of poverty and one based on minimum rights to resources (1987).

That poverty in economically advanced societies is to be defined relative to the standards of the society in question appears to be widely (though not universally) accepted[1]. The most commonly quoted formulation of such a concept in recent years has been Townsend's (1979) which serves as our starting point:

> Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the type of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged, or approved, in the societies to which they belong. Their resources are so seriously below those commanded by the average individual that they are, in effect, excluded from ordinary living patterns, customs and activities (p.31).

Poverty is thus seen as *exclusion* arising from *lack of resources*.

The range of approaches employed in measuring poverty in such societies has been described elsewhere[2]. Most—whether based on budget standards, 'official' lines, purely relative lines, the consensual approach—distinguish between the poor and the remainder of the population on the basis of current income, the difference being the way in which the income poverty line is derived. This has led Ringen (1988) to assert that there is a fundamental problem in such research, in that poverty is *defined directly* in terms of deprivation in consumption, but *measured indirectly* in terms of resources. The method of measurement, he argues, is thus not derived from or justified in the theoretical definition (p.357). Ringen argues that this is not simply a concern for theoretical purists, but that income is in fact not a *reliable* measure of poverty defined as low consumption—many of those not on low income suffer deprivation in consumption, and far from all the members of low income groups suffer such deprivation. Poverty defined as exclusion due to lack of resources—understood as a state of generalised deprivation—is characterised by both a low standard of consumption/deprivation and a low level of income. The poor must therefore be identified using both a consumption/deprivation and an income criterion: exclusion is to be measured directly, together with an income criterion to exclude those who have a low standard of living for reasons other than low income.

This is not the approach adopted even by most of the studies which have attempted to measure deprivation directly. Although Townsend (1979) pioneered the measurement of deprivation, selecting items from a set of indicators of style of living for British households to construct a summary deprivation index, scores on this index were not used to count the poor. Rather, an income threshold was derived, representing the point below which deprivation scores, it was tentatively suggested, 'escalated disproportionately'. The existence and indeed plausibility of such a threshold continues to be hotly debated[3]. In actually counting the poor, then, Townsend employed the income threshold alone, without reference to the deprivation scores of the households concerned. More recently, Townsend and Gordon (1989) make use of data from a survey carried out in London in 1985–86 which covered a wider range of activities and items, to construct separate summary indices of material and social deprivation. Discriminant analysis is employed to identify the income level which best separates the 'deprived' and the 'non-deprived', which they argue can be considered to be the 'poverty line'.

Mack and Lansley (1985), by contrast, adopted a 'direct' approach which uses deprivation indicators to identify the poor, rejecting reliance on an income criterion because for a variety of reasons people with similar current incomes are found to have different living standards. They defined poverty as 'enforced lack of socially-perceived necessities', enforced in the sense of springing from lack of resources (p.39). Lifestyle items were selected for inclusion in their deprivation index on the basis of views in their sample as to which constituted a necessity (whereas Townsend's aim was to include items which reflected 'ordinary living patterns'). In order to control for diversity arising simply from tastes—a major element in Piachaud's (1981) critique of Townsend—'enforced lack' of an item was taken to be where the respondent lacked the item *and* said they would like it but could not afford it. In assessing the numbers in poverty, they focused on those who are experiencing enforced lack of three or more out of a set of 22 necessities. Recognising that there may be problems with taking at face value people's own evaluations of whether absence is enforced, they also looked *inter alia* at the difference made by:

a) excluding those on 'high' incomes (in the top half of the income distribution) or with otherwise high spending patterns even if they report enforced lack of three or more items;

b) including those on low incomes (in the bottom four deciles) lacking three or more items even where they said they were doing without by choice[4].

In essence, then, the deprivation index was used directly as the basis for distinguishing the poor, although considerable attention was paid to analysing the relationship between deprivation and income.

Ringen (1988) himself briefly illustrates the joint use of consumption and income criteria with data from Sweden, but with a very limited and unsatisfactory set of indicators of consumption deprivation[5]. In addition, he adds to the general confusion by applying relative income lines together with an unchanged 'absolute' consumption deprivation standard to 1968 and 1981, on the grounds that poverty should be measured by some combination of relative and absolute standards (p.361). The logic behind this suggestion is far from clear, and here we concentrate simply on the use of combined income/deprivation criteria at a point in time.

Any method of measuring poverty can only be assessed if one is clear about a) the concept of poverty being adopted, and b) the purpose of the measurement exercise. Sen (1979) emphasised that the 'direct method' and the 'income method' are not two alternative ways of measuring the same thing, but represent two alternative conceptions of poverty: the former identifies those whose actual consumption fails to meet (what are accepted as) minimum needs, while the latter identifies those who do not have the ability to meet those needs within the behavioural constraints (for example, on expenditure patterns) typical in that community (p.291). This is echoed in Ringen's distinction between poverty as deprivation and poverty as lack of resources (1988, p.357). Atkinson (1987) makes the related distinction between a concern with the attainment of *minimum standard of living* and with people's *rights* as citizens to a *minimum level of resources*, the disposal of which is a matter for them. Such a rights approach appears likely to be a fruitful one and we return to its implications in the final section. Where poverty is defined as exclusion due to lack of resources, though, as it commonly is, it would appear (to us) necessarily to entail deprivation in consumption: while that deprivation is produced by lack of resources, it is the fact that a minimum standard of living is not being attained that constitutes exclusion. If the relationship between income and deprivation is very strong, income alone may still be a reliable indicator of exclusion due to lack of resources: this has to be demonstrated rather than taken for granted, however.

This brings us to the different purposes the measurement exercise may have. Veit-Wilson (1989) has distinguished between aiming to *count* the numbers defined as poor, *explain* why people are poor, *pre-*

scribe, report or *discover* an income poverty line. A central theme of this paper is that if the relationship between current income and deprivation is not so strong, then counting those excluded due to lack of resources, and discovering an income poverty line (presumably defined as an income level below which 'most' people are excluded due to lack of resources and above which they are not), become distinct exercises. Identifying and counting those who are excluded due to lack of resources we see as a crucial first step in explaining the processes which lead to people being in that situation. This *may* also allow conclusions to be drawn about the minimum resources necessary to avoid such exclusion.

Our central concern in this paper, then, is with the relationship between living patterns, income and wider resources, and the implications for poverty measurement. Our primary objective is to take the definition of poverty as exclusion due to lack of resources as a starting-point, and follow through the logic of incorporating both exclusion and lack of resources in measuring poverty. In doing so, our secondary aim is to show that measuring deprivation by simply adding together items relating to everyday activities or consumption items with those related to the possession of consumer durables or the quality of housing may be unsatisfactory. Information on income and experiences over a longer period, and on savings, other assets and debts, allows us to elucidate how the observed deprivation/current income pattern at a point in time comes about. Finally, the implications for the way in which poverty is in fact conceptualised are considered.

Having described the data to be employed, we proceed through the following steps:

1. The set of items or activities on which information has been gathered is analysed, to see which can not only be taken as socially defined necessities, but can also best serve as indicators of generalised deprivation or exclusion from ordinary living patterns.
2. Using indicators of deprivation and current income, households which are both below income thresholds and appear to be experiencing enforced deprivation are identified.
3. The characteristics of these households are compared with those who either report low incomes but not enforced deprivation, or report enforced deprivation but do not have low incomes; information on annual incomes and on savings and other assets is used to look at broader resources and help to explain the relationship between deprivation scores and current income.

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This has much in common with the research agendas put forward in this Journal by Donnison (1988, in response to Ringen) and Veit-Wilson (1987) but we differ in focusing on the implications of applying a combined income and deprivation criterion. This must be distinguished from the use of expenditure rather than income as the measure of welfare, an approach followed in a number of poverty studies ranging from Abel-Smith and Townsend's path-breaking *The Poor and the Poorest* (1965) to recent research carried out for Eurostat (ISSAS, 1990). McGregor and Borooah (1992) document that, for the UK, substantially different sets of people will be identified as poor using a low expenditure rather than a low income criterion. This highlights the importance of the distinction between income and consumption-based measures, but does not mean one can simply rely on expenditure in measuring poverty. Apart from the fact that expenditure and income are measuring different aspects of welfare, the relationship between low measured expenditure over a short period (two weeks in the Family Expenditure Survey) and generalised deprivation remains to be established[6]. Further, measuring patterns of participation and non-participation provides scope for the identification of those who are excluded in a manner not possible with expenditure data alone.

THE DATA

The data employed were obtained from a specially designed large scale household survey carried out throughout Ireland in 1987 by the Economic and Social Research Institute. The sampling frame was the Register of Electors, from which a random multi-stage cluster sample was drawn. A sample of 3,294 households was achieved, representing an effective response rate of 64 per cent, which is comparable with other such surveys covering the sensitive area of incomes, such as the Household Budget Surveys carried out in Ireland or the Family Expenditure Surveys in Britain. The sample for analysis was reweighted to accord with external information in terms of household size and location and the age and occupational group of the household head. A range of validation checks against external information provide the basis for confidence in the overall representativeness of the reweighted sample in terms of such crucial variables as numbers in receipt of social security, labour force status, occupation and industry of employees, and the shape of the distribution of household income. (The survey design, response, reweighting and validation are fully described in Callan, Nolan *et al.*, 1989).

The survey obtained information on household composition, demo-

graphic characteristics, labour force status, occupation and industry, and income by source. (The way in which income data was collected corresponds closely with the Family Expenditure Survey, except that particular attention was paid to the measurement of income from farming, involving a separate detailed questionnaire.) In addition, a range of indicators of style of living was included, described in detail below, and information on debts/arrears and savings and other assets was also sought. Subjective evaluations of financial stress, and of minimum needs, were also examined. This database has been used to construct income poverty lines for Ireland using a variety of methods—purely relative lines, consensual or subjective lines, and 'official' lines based on social security support rates (Callan, Nolan, *et al.*, 1989; Nolan and Callan, 1989). The purely relative income lines, which will be employed below, are calculated as, for example 40 per cent, 50 per cent or 60 per cent of mean equivalent disposable household income in the sample. A variety of adult equivalence scales has been used to test for the sensitivity of the results. The scales employed here, taking the household head to be 1, give a value of 0.66 to each additional adult and 0.33 to each child: varying the scales did not affect the results significantly[7]. (It should be noted that the household is taken as the unit of analysis: we do not attempt to deal with issues of intra-household distribution). In the next section we describe the indicators of style of living available for the sample and discuss how appropriate indicators of deprivation may be derived.

MEASURING DEPRIVATION

The first step in the analysis is to identify, if possible, a set of items or activities widely regarded as necessities, which can be satisfactorily employed as indicators of deprivation. In doing so, the general approach developed by Mack and Lansley (1985), of focusing on enforced lack of socially perceived necessities, was followed. In the 1987 ESRI survey, respondents were given a list of 20 items or activities and asked which ones they believed were 'necessities, that is things which every household (or person) should be able to have and that nobody should have to do without'. They were then asked which items they did not themselves have/avail of, and which of these they would like to have but had to do without because of lack of money. Items included in the survey were for the most part taken from those used by Mack and Lansley, taking Irish circumstances into account[8]. Like them, we do not attempt to include aspects of living standards which are largely non-market, that is we concentrate on items which

TABLE 1. *Indicators of actual style of living and socially defined necessities*

Socially defined necessity	*Percentage lacking*	*Percentage experiencing enforced lack*	*Percentage stating necessity*
Refrigerator	5	3	92
Washing machine	20	10	82
Telephone	48	31	45
Car	38	22	59
Colour TV	20	11	37
A week's annual holiday away from home	68	49	50
A dry damp-free dwelling	10	9	99
Heating for the living rooms when it is cold	3	2	99
Central heating in the house	45	30	49
An indoor toilet in the dwelling	7	6	98
Bath or shower	9	7	98
A meal with meat, chicken or fish every second day	13	9	84
A warm, waterproof overcoat	13	8	93
Two pairs of strong shoes	16	11	88
To be able to save	57	55	88
A daily newspaper	45	16	39
A roast meat joint once a week	24	13	64
A hobby or leisure activity	33	12	73
New, not secondhand, clothes	10	8	77
Presents for friends or family once a year	24	13	60

are generally acquired by the use of people's disposable incomes. Table 1 lists the items and shows the sample responses.

The more widely possessed items also tended to be more generally regarded as necessities—with, for example, a fridge, heating for the living rooms, indoor toilet and bath or shower possessed by most and felt by nearly all respondents to be necessites. There were some notable exceptions, with most people stating that being able to save was a necessity but less than half saying they could do so, while 80 per cent of households had a colour TV but only 37 per cent thought it was a necessity[9]. Thus selecting items as deprivation indicators on the basis of *views* in the population as to which are necessities (Mack and Lansley's approach) will not give exactly the same results as using actual possession by a majority/most people (which was Townsend's procedure).

In addition to the 20 items in Table 1, a further four included in the survey (but without the supplementary question as to whether households were doing without because they could not afford it) will be employed:

i. whether there was a day during the previous two weeks when the respondent did not have a substantial meal at all—from getting up to going to bed;

TABLE 2. *Scores on 24-item life-style index by household equivalent income decile*

Equivalent income decile[a]	*Mean score on index*	*(%) with index score*	
		>10	*<5*
1	8.1	34.8	30.7
2	8.1	36.0	31.0
3	8.1	29.8	27.5
4	6.6	20.6	42.9
5	5.8	15.9	52.7
6	5.0	11.9	65.4
7	3.8	4.8	75.3
8	3.9	7.6	72.5
9	2.7	3.2	87.3
10	2.1	1.7	92.3

[a] Equivalence scale 1 for household head;
0.66 for each other adult;
0.33 for each child.

ii. whether they had to go without heating during the last year through lack of money, that is, having to go without a fire on a cold day, or go to bed early to keep warm or light the fire late because of lack of coal/fuel;

iii. whether the respondent has not had an afternoon or evening out in the last fortnight, 'something that costs money', and this was stated to be because they had not enough money[10];

iv. whether the household has experienced any of the following:

a) it is currently in arrears on rent, mortgage, electricity or gas; living expenses (such as rent, food, Christmas or back to school expenses);

b) it has had to go into debt in the last 12 months to meet ordinary living expenses (such as rent, food, Christmas or back-to-school expenses);

c) it has had to sell or pawn anything worth £50 or more to meet ordinary living expenses; or

d) it has received assistance from a private charity in the past year.

While a broader set of indicators would of course be helpful, the set available suffice to illustrate the argument. If we simply construct an index from these 24 items, the mean scores for households ranked by current equivalent income decile is shown in Table 2. The mean score varies little across the bottom three deciles, then falls steadily as we move up towards the top of the income distribution. However, there is a good deal of variability in scores within each decile, and some low

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income households have most of the items while some high income ones lack a considerable number. This is consistent with the pattern shown by Townsend and Mack and Lansley's British data, as well as Ringen's (1988) illustrative data for Sweden and some studies elsewhere (for example, Mayer and Jenks, 1988). Concentrating on (subjectively assessed) enforced lack, where the respondent said they would like but could not afford the item, the relationship with income was stronger but considerable variability remained, again as found by Mack and Lansley.

The average correlation between income measured continuously and lack of individual lifestyle items is -0.11 (which by coincidence is exactly that found by Townsend). Using income deciles and the aggregate 24-item lifestyle measure, the observed correlation reaches -0.47. Correcting for attenuation due to less than perfect reliability in the measure of lifestyle, this rises to -0.51. Clearly, one would not expect current disposable income to be the sole predictor of lifestyle or deprivation—among other things, stage in the lifecycle and experiences and resources over a longer period will also play a central role.

Previous research employing deprivation indicators has generally relied on summary indices of this type, using a sub-set of items chosen on the basis of the extent to which they are possessed or regarded as necessities by most of the sample. (Desai and Shah, 1988, weight individual items differently in constructing an index, on the basis of the percentage having each.) The relationship between the different indicators has been given little attention—in effect, a single underlying dimension of deprivation has been assumed. It is clear, though, that enforced absence of particular items is of interest in this context insofar as this reflects what Coates and Silburn (1970) termed an interrelated network of deprivation, or as Mack and Lansley put it, when they affect a person's way of life: the relationship between the items is therefore of central importance. The first stage in the analysis therefore, before attempting to select items which would be appropriate as indicators of generalised deprivation, is to systematically examine the dimensions of deprivation, to see whether the items cluster into distinct groups. In order to do so, factor analysis was applied to the 20 items in Table 1—concentrating on enforced lack—plus the four additional items. The way in which factor analysis was applied and the results are fully described in Whelan *et al.*, (1991)[11]. As shown in Table 3, they suggest that it is useful to distinguish three clusters or groupings of items:

i. basic' lifestyle dimension—consisting of eight items such as food and clothes;

TABLE 3. *Factor solution for life-style deprivation items*

	Basic lifestyle dimension	*Housing and household durables dimension*	*Other lifestyle dimension*
Basic dimension:			
Go without heat	0.81	0.11	0.33
Go without substantial meal	0.89	0.20	0.09
Arrears/Debt	0.76	0.04	0.25
New not second-hand clothes	0.74	0.29	0.30
Meal with meat, chicken or fish	0.74	0.40	0.30
A warm waterproof overcoat	0.76	0.42	0.16
Two pairs of strong shoes	0.75	0.38	0.25
A roast or its equivalent once a week	0.73	0.25	0.33
Housing/durables dimension:			
Bath or shower	0.17	0.99	−0.01
ndoor toilet	0.16	0.98	−0.01
Washing machine	0.02	0.63	0.46
Refrigerator	0.26	0.62	0.23
Colour television	0.21	0.53	0.30
A dry damp-free dwelling	0.27	0.47	0.30
Heating for the living room when it is cold	0.48	0.30	0.25
Other dimension:			
Annual holiday away from home not with relatives	0.39	0.01	0.69
To be able to save some of one's income regularly	0.49	0.18	0.54
Daily newspaper	0.48	0.11	0.50
Telephone	0.25	0.28	0.65
A hobby or leisure activity	0.59	−0.08	0.44
Central heating	0.19	0.40	0.59
Presents for friends and family once a year	0.58	0.20	0.44
Car	0.26	0.20	0.60
Able to afford an afternoon or evening out in previous two weeks	0.43	0.08	0.38

ii. a 'housing and durables' dimension—consisting of seven items related to housing quality and facilities;

iii. an 'other' aspects of lifestyle dimension—consisting of nine items such as social participation and leisure activities, having a car or telephone.

The results of the factor analysis were taken as a general guide in grouping items, but judgement was applied where the loadings on the two factors were similar[12]. Overall, though, the distinction between the basic and housing dimensions is extremely clear cut and is the most important implication of the results of the factor analysis. The distinction between basic and 'other' dimensions is less clear cut but still pronounced for many of the items.

The sample evidence thus suggests that it is useful to distinguish these three dimensions, rather than simply aggregating items across

the factors into a summary index—rather different households or types of household are lacking each type, suggesting that the processes producing each may also be rather different. This is reflected in the fact that the relationship with current income differs across the dimensions, the correlation being considerably higher for the 'other' items than for the basic or housing ones[13]. This may be because households go beyond current income to draw on savings, social support networks and access to credit in order to avoid deprivation of the basic items, while housing and household durables are heavily influenced by income over a much longer period. Taking this into account, to select items which would be appropriate as indicators of generalised deprivation we return to the information in Table 1 about the extent to which the various items are considered to be necessities by respondents, and the extent of possession/lack in the sample. Following Mack and Lansley, we place most weight on social perceptions of needs. The five basic items for which this information is available are regarded as necessities by two-thirds or more of the sample. Of the remaining three basic items, it appears likely to us that 'not having a substantial meal all day' and 'having to go without heating through lack of money', and probably also going into arrears/debts 'to meet ordinary living expenses' such as food and rent, would be regarded by most people as something which everyone should be able to avoid. With the possible exception of arrears/debt to meet ordinary living expenses, then, the basic items can be taken to be socially perceived necessities. The levels of absence and enforced absence of these items are also low, with only 10–15 per cent or less of the sample lacking each item except the weekly roast, which 24 per cent lacked.

The items in the housing and durables dimension are overwhelmingly regarded as necessities, by 82 per cent or more, with the exception of a TV, which is something of a special case as already discussed. They are also possessed by 80 per cent or more of the sample. The items included in the 'other' dimension, on the other hand, are regarded as necessities by much lower percentages, with the exception of being able to save regularly (which 88 per cent state to be a necessity) and a hobby or leisure activity (73 per cent). They are also generally possessed by a much lower percentage. Even being able to save, so heavily regarded as a necessity, is actually 'possessed' by only a minority of households.

For some purposes it will be valuable to look at each dimension, but here, given our objective, we concentrate on what we have termed the basic dimension. These items clearly represent socially per-

ceived necessities, they reflect rather basic aspects of current material deprivation, and they cluster together, which lends support to the notion that they are useful as indicators of the underlying generalised deprivation we are trying to measure. Most of the items in the social and other dimension, on the other hand, do not appear appropriate because they are not overwhelmingly regarded as necessities. Less than 60 per cent on average see them as necessities, as against an average of over 80 per cent for the items in the 'basic' set. 'Being able to save regularly', although stated to be a necessity by most people, we do not regard as satisfactory as an indicator of generalised exclusion in the Irish context because it is lacked by 57 per cent of the sample. Mack and Lansley, who did not include this item, found no example of an item regarded as a necessity but possessed by only a minority; in the British context, though clearly not in a Third World one, widespread ownership was a prerequisite of an item being considered a necessity (1985, p.67). Having a hobby or leisure activity is also widely considered a necessity and is possessed by 67 per cent (and in fact loads more heavily on the basic dimension in the factor analysis). We do not include it in our preferred measure of deprivation principally because of its vagueness and ambiguity; a hobby or leisure activity could mean quite different things to different people, involving widely varying commitment of resources[14].

The housing and durables items are possessed by most people and regarded as necessities by almost everyone (except the TV). However, it will be seen below that they do not relate to the current resources and extent of exclusion of the household in the same way as the basic items. The fact that they do not cluster with the basic items itself means that rather different households and causal processes are involved. We will argue that deprivation in terms of housing and related durables is a product of very specific factors, and so the housing items—though providing valuable information about one aspect of living standards—are not satisfactory as indicators of current generalised definition of exclusion. It must be emphasised that this will not necessarily hold for all types of housing indicators, or for other societies where the housing market is structured differently. (Indeed, at a more general level our anxiety to avoid reification of the particular dimensions we have identified is to be emphasised: our interest is in analytical approaches to the identification of satisfactory measures of generalised deprivation). Returning to this issue below, we proceed by concentrating on the items in the basic dimension. It is important to be clear about why we do so: it is not because we wish to prescribe in

TABLE 4. *Distribution of scores on basic deprivation index*

Score	*Percentage of households*
0	68.0
1	14.7
2	6.7
3	4.5
4	2.7
5	1.7
6 or more	1.7
All	100.0

a normative fashion a hierarchy in which people *should* satisfy their needs, nor focus exclusively on a particular set of items. Rather, the respondents' evaluations, the results of the factor analysis, and the analysis of the relationship between the different items and household resources to be described below, lead us to believe these are the best indicators available to us of the generalised underlying deprivation we are trying to measure.

We now construct a 'basic deprivation index' based on these eight items. For five of the eight, households were asked directly about whether absence was due to the fact that they could not afford the item. For these items, households score 1 on the index for each item which the household lacks *and* says that absence is in this sense enforced. This may be regarded as an unduly stringent condition. As Mack and Lansley discuss in detail, some households could have very low expectations, and/or may be unwilling to acknowledge or state that they could not afford such basic necessities. However, a comparison of those lacking the five items who say this is enforced by lack of resources with those who say they didn't want the item reveals that the latter do have significantly higher incomes on average—their average incomes are closer to the households who do possess the items. Further, those who claim to be doing without a particular item voluntarily display levels of deprivation on the other basic items which are little different to those who possess the item, well below those stating they cannot afford the item. This suggests that, for the most part, those who say they are doing without basic items voluntarily are indeed choosing to go without.

For these five items we therefore count as enforced deprivation only what are stated to be items lacked due to absence of resources. For the other three items the subjective assessments are not available but the nature of these items suggests that lack is likely to be enforced in

TABLE 5. *Basic deprivation scores by equivalent income decile*

Current equivalent disposable income decile	*Households with a basic deprivation index score of:*	
	⩾1	⩾2
	(%)	
1	17.2	21.2
2	17.9	23.4
3	16.3	18.2
4	12.5	9.4
5	8.3	7.3
6	8.9	8.4
7	6.6	5.3
8	5.6	3.2
9	3.6	2.5
10	3.1	1.2
All	100.0	100.0

that sense in most cases. For these items, simply experiencing deprivation adds to the basic deprivation index. The distribution of scores on this index for the sample is shown in Table 4: 68 per cent of households score zero, 15 per cent score 1, and 17 per cent are experiencing enforced lack of two or more basic items.

We now turn to the way in which these basic deprivation scores relate to current resources, and how deprivation and income may be combined to measure poverty and exclusion due to lack of resources.

BASIC DEPRIVATION, CURRENT INCOME AND POVERTY

As already emphasised, the widely used definition of relative poverty relates to exclusion due to lack of resources. Establishing who is experiencing basic deprivation, in terms of the eight-item index, should be seen as only a first stage in identifying households who would be regarded as poor in that sense. The households concerned clearly regard the lack of items as enforced by lack of resources, but as Table 5 shows some of those households are on relatively high incomes. We explore the nature of those particular households below, but the central point to be made here is that enforcement due to lack of resources needs to relate to societal rather than simply individual standards and expectations, and needs to be taken into account directly if the poverty measure is to be fully consistent with the definition.

This provides the rationale for focusing on those households which are both experiencing basic deprivation and at relatively low income

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TABLE 6. *Percentage of households below relative income thresholds and experiencing basic deprivation*

Below relative income line	*Experiencing enforced deprivations of:*	
	At least one basic item	*Two or more basic items*
	(%)	
40 per cent	3.3	2.0
50 per cent	9.8	6.6
60 per cent	16.0	10.7
70 per cent	20.9	12.7
80 per cent	23.2	13.8

levels. Such a focus was justified by Ringen (1987) in the following terms:

> General deprivation cannot be measured with either resource indicators or way of life indicators alone...Resource indicators alone can only say something about the probability of deprivation in way of life. Low income, for example, may represent only a temporary and atypical situation which does not force the person to change his lifestyle—he may for a while live off savings—and there may be ways of avoiding life in deprivation such as to live on someone else's income. To ascertain poverty we need to identify directly the consequences we normally expect to follow from low income. On the other hand, to rely on way of life indicators alone, that is, to go all out for direct measurement, is also insufficient since people may live as if they were poor without being poor...We need to establish not only that people live as if they were poor but that they do so because they do not have the means to avoid it (pp.161–2).

In measuring low income, we use the set of relative income poverty lines derived from average equivalent disposable income in the sample as described earlier; lines going from 40 per cent to 80 per cent of that mean are employed for illustration. Table 6 shows the percentage of households in the sample falling below each of these income thresholds *and* experiencing deprivation of at least one basic item, and the percentage below each line and deprived of two or more items. The percentage of households involved varies substantially. Whereas only 2 per cent of sample households lack two or more items and have incomes below 40 per cent of the average, 23 per cent of households are experiencing enforced lack of at least one item and are below 80 per cent of mean income.

How can we narrow down the criteria which are to be applied? The first issue relates to the deprivation measure: should a score of one item lacked suffice to indicate exclusion for current purposes, or

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should only higher scores be taken? Here it is essential to emphasise that the presence or absence of a *particular* item in itself is not crucial. The set of items measured are intended to serve as indicators of pervasive exclusion from ordinary living patterns—what Ringen describes as a state of general deprivation—which is the latent or underlying variable one is trying to measure. On conceptual grounds, we would argue that genuinely enforced deprivation of even one socially-defined necessity should be sufficient to indicate such pervasive exclusion. Given the way in which the basic index has been constructed—the nature of the items themselves, the fact that the factor analysis showed that they cluster together, and that only subjectively assessed enforced lack is counted—and that an income criterion is also to be applied, we would argue that even a score of one on that index is likely to indicate generalised deprivation. However, while the numbers involved would of course differ, the general pattern of the results would be similar if a cut-off of two or more items was adopted.

One measure of the reliability of our index is to calculate Cronbach's alpha, which can be interpreted as the correlation between an index based on this particular set of items and all other possible indices containing the same number of items which could be constructed from a hypothetical universe of items that measure the characteristic of interest. Variation in the size of the alpha coefficient can also provide evidence relevant to the validity of our measure. As we impose increasingly stringent conditions in order to ensure that the items are lacking because of resource constraints we would expect that the increased precision of our measure should be reflected in the size of the alpha coefficient. This is indeed what happens. When we focus simply on absence of the items the alpha coefficient is 0.71; restricting our attention to what is stated to be enforced absence raises this to 0.76; finally as one imposes income conditions employing the 70 per cent, 60 per cent and 50 per cent line respectively the coefficient increases from 0.80 to 0.82 and finally to 0.85.

Turning to the income threshold, any particular figure will of its nature be arbitrary. However, it may be possible to apply sensible upper and lower limits to the range to be considered. In broad terms, such a range may be bounded by the 50 per cent and 70 per cent relative lines. Below the 50 per cent line the income levels involved are lower than most of the existing social welfare support rates. Further, households below the 40 per cent line show lower levels of basic deprivation and are less likely to state that they are having extreme difficulty making ends meet than those between the 40 per cent and

TABLE 7. *Experience of basic deprivation for households at different income levels and lacking at least one basic item*

	Households experiencing basic deprivation		
Percentage experiencing:	*Below the 50% line*	*Between the 50–60% lines*	*Between the 60–70% lines*
		(%)	
Debt	54.5	44.0	33.9
Main meal	17.0	13.8	11.7
Heat	27.4	23.7	11.8
Enforced lack of:			
New clothes	33.6	22.3	14.7
Two pairs of shoes	43.7	36.2	28.0
Coat	24.4	31.7	25.5
Roast or equivalent	44.7	37.2	44.4
Meat, fish or equivalent	39.9	29.7	24.5
Percentage of households experiencing extreme difficulty in making ends meet	77.7	60.9	54.2

50 per cent thresholds. This is related to the nature of the households involved and in particular their resources over the longer term, as will be shown. Above the 70 per cent income threshold, on the other hand, the income levels involved are significantly higher than most of the social welfare system's support rates. Most of the households between the 70 per cent and 80 per cent lines are not experiencing basic deprivation, and the proportion reporting extreme difficulty in making ends meet is considerably lower than for households between the 60 per cent and 70 per cent lines. (We do not attempt here to identify an income threshold below which deprivation increases sharply, which could be attributed special status, *à la* Townsend).

Focusing on households experiencing deprivation of at least one basic item and with incomes below the 50–70 per cent thresholds, the combined deprivation/income criteria would then identify between 10 per cent and 21 per cent of households as experiencing exclusion due to lack of rescoures. Table 7 looks separately at those experiencing basic deprivation and below the 50 per cent line, between 50–60 per cent, and between 60–70 per cent, and illustrates the extent of their experience of basic deprivation. For the households below the 50 per cent line, 55 per cent are experiencing debt problems, and about the same percentage cannot afford two pairs of shoes, a roast or equivalent once a week, or a meal with meat or fish every second day. The table also shows that almost 80 per cent of these households

TABLE 8. *Households experiencing basic deprivation and below income thresholds by labour force status of head*

Labour force status of head	*Households experiencing basic deprivation and below:*		
	50% line	*60% line*	*70% line*
		(%)	
Employee	8.8	11.7	14.9
Farmer	16.7	12.4	11.1
Self-employed	2.2	2.1	2.8
Unemployed	49.5	36.5	29.9
Ill/disabled	11.9	16.6	14.0
Retired	3.8	5.6	8.3
Home duties	6.7	15.0	18.9
All	100.0	100.0	100.0

said they were having extreme difficulty in making ends meet. There can be little doubt that those households are experiencing deprivation of a basic kind and this arises from the level of current resources available to the household.

Looking at those between the 50 per cent and 60 per cent lines and experiencing basic deprivation, lower but still very substantial numbers are experiencing debt, cannot afford new clothes or a second pair of shoes, a roast every week or meat/fish every second day. About 60 per cent stated they were having extreme difficulty making ends meet. For the final group, between the 60 per cent and 70 per cent income lines, the levels of deprivation are again lower and 55 per cent say they are having extreme difficulty making ends meet. So as the income threshold is raised the level of basic deprivation declines, but even for the group between 60 per cent and 70 per cent of average income about one-quarter cannot afford a warm overcoat or two pairs of shoes.

What then are the characteristics of the households which are experiencing basic deprivation and below the income thresholds? Table 8 shows the labour force status of the household head for each of the three groups. Focusing on the central one—those experiencing basic deprivation and below the 60 per cent line—37 per cent are headed by an unemployed person, about 16 per cent have a sick/disabled head and 15 per cent a head in home duties, about 12 per cent are headed by a farmer and a similar percentage by an employee. Very few are headed by a self-employed or retired person. In terms of the *risk* of being poor based on this criterion, 51 per cent of households

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TABLE 9. *Households below income thresholds by labour force status of head*

Labour force status of head	*Households below 50% income line*	*Households below 60% line and experiencing basic deprivation*	*Households below 60% line and not experiencing basic deprivation*
		(%)	
Employee	8.9	11.7	16.3
Farmer	23.3	12.4	25.5
Self-employed	4.7	2.1	7.4
Unemployed	39.1	36.5	17.7
Ill/disabled	10.1	16.6	7.7
Retired	7.5	5.6	13.0
Home duties	6.3	15.0	12.3
All	100.0	100.0	100.0

with an unemployed head fall into this group, 42 per cent of those with a sick/disabled head, 16 per cent of farmer headed households, 25 per cent of those with a head in home duties and only 7 per cent of those with a retired head and 4 per cent of those with an employee or self-empoyed person as head.

The application of criteria in terms of both basic deprivation and current income thus serve to identify a set of households which merit the description 'poor' in accordance with the Townsend definition. A number of important issues remain to be addressed—centrally, what difference does the application of the combined criteria make, why are some low income households apparently not experiencing basic deprivation when a substantial proportion clearly are, and why are some higher income households reporting such deprivation? In the next section we explore these issues, looking at the characteristics of the households concerned and drawing on information relating to resources other than current income.

INCOME, DEPRIVATION AND WIDER RESOURCES

The impact on composition

Clearly it is important to first see the difference applying these income plus deprivation criteria rather than purely income cutoffs makes to the composition of the group involved. About 16 per cent of households in the sample are below the 60 per cent line and experiencing basic deprivation, approximately the same as the overall percentage

below the 50 per cent income line. Table 9 compares the composition of the two groups in terms of labour force status of the household head. Farmers form a considerably smaller proportion of those below the higher income line and experiencing basic deprivation, while the ill/disabled and especially households headed by someone in home duties form a higher proportion.

It is worth noting that although the overall percentages headed by an unemployed person or employee do not change very much when we move from the income to the income plus deprivation measure, the actual households involved are not always the same. Overall, only 58 per cent of the households below the 50 per cent line are among those below 60 per cent and experiencing basic deprivation. While over half of the households below the 50 per cent line and not experiencing basic deprivation are headed by a farmer, self-employed or retired person, one-quarter have an unemployed head. Thus the application of the combined income/deprivation criteria also leads to some differences within labour force categories in the households being categorised as poor.

Low income households not experiencing basic deprivation

We now focus in more detail on the households reporting low current incomes in the survey and not apparently experiencing enforced basic deprivation. Of those below the 60 per cent relative income threshold, for example, 44 per cent—or about 13 per cent of all the households in the sample—score zero on the enforced basic deprivation index. Table 9 also sets out some of the characteristics of these households, so they can be compared with the households below that line which are experiencing enforced basic deprivation. Compared with the latter, a much higher percentage of those not experiencing deprivation are headed by a farmer or other self-employed or retired persons.

We have seen that 71 per cent of those below the 60 per cent income line and experiencing basic deprivation said that they were having extreme difficulty making ends meet. The corresponding figure for those below that income line and not experiencing basic deprivation is much lower, at 37 per cent, suggesting the basic deprivation scores are indeed allowing us to distinguish between groups in rather different situations. This is also indicated by an examination of the extent of deprivation in terms of housing and social/other items: those below the income line and not experiencing basic deprivation also show much lower levels of (what they report as) enforced lack of these other types of items than do the group experiencing basic deprivation.

Why then do some of those with low current reported incomes

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TABLE 10. *Households below 60% income line experiencing/not experiencing basic deprivation by labour force status of head: deposits and house property*

	Below 60% income line			
	Mean level of savings		*Net house value*	
Labour force status	*Experiencing basic deprivation*	*Not experiencing basic deprivation*	*Experiencing basic deprivation*	*Not experiencing basic deprivation*
		IR£		
Employee	204	1,342	9,398	14,655
Farmer	790	2,208	19,677	27,060
Self-employed	397	2,681	22,537	29,284
Unemployed	45	442	5,335	16,460
Sick/disabled	360	1,741	12,481	19,222
Retired	832	3,052	11,034	22,364
Home duties	27	1,200	14,719	18,047
All	260	1,720	10,974	20,990

manage to avoid basic deprivation while others experience it? To understand how this come about, the nature of the current income measures must be examined and the relationship with resources available to the household explored. In doing so, it must always be kept in mind that income as measured in household surveys is subject to (intended or unintended) reporting errors. As is usual in such surveys, the current income measure relates to that received last week (or fortnight/month) for employee income and social welfare transfers. For income from self-employment, including farming, this would introduce excessive variability and the weekly average amount received over a twelve-month period is used instead. For either employees and social welfare recipients, or the self-employed, current income as measured in this way may not adequately reflect resources available to the household. For farmers and the self-employed, the year in question may have been an unusually bad one—and for Irish farmers this was in fact the case for the year in question. Social welfare recipients, particularly those away from work through unemployment or illness, may have spent much of the previous year in work. In either case, households may have built up resources over a longer period and thus able to draw on savings or increase debt when income falls, to avoid—at least for a time—basic deprivation.

The importance of differences in wealth holdings in explaining variations in current living standards for those on similar income levels has long been recognised, but lack of suitable data has hindered

progress. The additional information obtained in the survey on savings and other assets is helpful here (described in Nolan, 1991). Table 10 shows the average level of reported household savings in the form of deposits in banks, building societies, etc, for households below the 60 per cent income threshold and experiencing/not experiencing basic deprivation, broken down by head's current labour force status. For each labour force status, the households not experiencing such deprivation have much greater savings to draw on. As another indicator of resources available to the household over a longer period, the table also shows the average value of property in the form of housing (that is, reported market value of the house for owner-occupiers less outstanding mortgage) for each group. Again, those not experiencing basic deprivation consistently have substantially higher levels of house property.

For some of those currently on low incomes, then, current income does not reflect their previous experience over a longer period and thus broader resources available. For those currently unemployed or away from work through illness, information in the sample allows us to look at how long they have been away from work and the number of weeks spent in work (if any) in the past year. For households headed by an unemployed person below the income line but not experiencing basic deprivation, the head has on average not been away from work as long as, and spent more of the last year in work than the heads of corresponding households experiencing deprivation. Conversely, for households headed by an employee and below the income line, those experiencing deprivation are more likely to have spent some of the past year out of work than those not experiencing deprivation. Annual income significantly higher than current income thus contributes towards the relatively high level of savings and other resources for some—though by no means all—the low income households not experiencing deprivation and headed by an employee or someone out of work.

For those households headed by a farmer or other self-employed person, current income already refers to that received over a year rather than a much shorter period. These income sources are however more volatile by nature and substantial fluctuations from year to year are common, and they are also more difficult to measure accurately in surveys than employee income or transfers. We have seen that households of this type reporting low incomes and not experiencing basic deprivation have much higher levels of savings and housing wealth than those who are experiencing deprivation. It is also the case that the average size of farm for the former is significantly higher—and farmers rather than other self-employed make up most of

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TABLE 11. *Percentage of households above 60% income line and experiencing basic deprivation who lack particular items*

Item	*Percentage of households, above 60% line and experiencing basic deprivation lacking items (enforced)*
	(%)
New not second-hand clothes	17.4
Warm coat	22.8
Roast or equivalent	34.1
Meal with meat, fish etc., every second day	21.4
Two pairs of shoes	28.6
Debt	40.4
Do without main meal	10.0
Do without heat	14.4

those low income households. Thus significant differences in longer term income between the two groups are suggested.

Before leaving this group of low income households not experiencing basic deprivation, it is important to note that they are not a homogenous group in terms of resources or other indicators of financial pressure and lifestyle. Table 10 suggests that substantially higher levels of resources are available to the households headed by a farmer, other self-employed or retired than to those with an employee, some in home duties, sick/ill or particularly an unemployed person. This is reflected in the extent of enforced deprivation of social/other lifestyle items, which is a good deal higher for the unemployed than for others. A higher percentage of the unemployed also report difficulty making ends meet. Although not currently experiencing basic deprivation, then, those households under the 60 per cent line with an unemployed head are clearly under greater financial strain than other households reporting similar current income levels.

Households experiencing basic deprivation but not on low incomes

We now turn to the group of households not on low current incomes but apparently experiencing what they regard as enforced basic deprivation. Half of those scoring 1 or more on the basic deprivation index are above the 60 per cent income threshold and 35 per cent are above the 70 per cent threshold—representing 15 per cent and 10 per cent respectively of all households in the sample. The first issue to be addressed is the actual current income levels of these households—are they mostly on incomes just above the cut-offs used? This is not in fact the case: the average income of these households is well above the thresholds employed, and as Table 5 showed they are distributed

TABLE 12. *Households above 60% income line experiencing basic deprivation by labour force status of head*

Labour force status	*Households above 60% line and experiencing basic deprivation*
	(%)
Employee	44.1
Farmer	9.4
Self-employed	5.6
Unemployed	7.1
Ill/disabled	4.5
Retired	12.9
Home duties	16.4
All	100.0

over the (equivalent) income distributions. The second issue we may consider is the nature of the basic deprivation being experienced. Table 11 shows the items lacked by the households above the 60 per cent line and experiencing basic deprivation. This is not very different from the pattern shown in Table 7 for the households below that income line and experiencing basic deprivation. Third, we can look at the extent of their deprivation of 'other' lifestyle items: while lower on average than for the group below the income threshold, those above the threshold experiencing basic deprivation do report a relatively substantial degree of enforced absence of these other items.

Why then are these households, with current incomes close to or above average, nonetheless experiencing such deprivation? Looking first at labour force status of the household head, Table 12 shows that this group is dominated by employees, who make up about 45 per cent of those above the 60 per cent line but experiencing basic deprivation. The other substantial groups are the retired and those in home duties, who make up 13 per cent and 16 per cent respectively. Only 10 per cent are headed by someone away from work through unemployment or illness. In terms of demographic characteristics—age of head, number of children—the group does not appear particularly distinctive.

Part of the explanation may again be with the fact that current income is not always a satisfactory indicator of longer term command over resources. In terms of annual income, an employee may have spent much of the previous year away from work and annual income may be well below that currently being received. While this is in fact the case for some of the households concerned, it applies only to a minority. Relatively high expenditure on housing, leaving less for

TABLE 13. *Employee-headed households above 60% line by equivalent income decile and experiencing/not experiencing basic deprivation: mean savings and house property*

	Mean deposits		*Mean net house value*	
Equivalent income decile	*Experiencing basic deprivation*	*Not experiencing basic deprivation*	*Experiencing basic deprivation*	*Not experiencing basic deprivation*
		IR £		
4	833	1,160	15,494	18,383
5	428	1,101	11,414	18,924
6	542	1,024	15,759	20,999
7	599	1,529	14,265	24,097
8	110	1,839	15,994	25,659
9	831	2,847	21,464	25,484
10	1,713	5,434	15,995	24,120
All	666	2,461	15,442	23,428

other goods and services, also appears to be a factor for some of these households. Some households which have experienced a sharp fall in income, so that the current level is much lower than previous or usual income, could find it difficult to meet their financial commitments, though again this appears to apply only to a minority. It is noteworthy that there are significant differences in the level of savings and other assets reported by the households above the income thresholds and experiencing deprivation and other households at similar income levels. Controlling for equivalent income decile, Table 13 shows that for households headed by an employee—the dominant group—those experiencing basic deprivation have much lower levels of savings and own much less valuable houses on average than corresponding households not experiencing basic deprivation.

This group clearly requires further investigation, though the analysis so far does suggest that resources over a prolonged period have a role in explaining their current living patterns. This is also indicated by the fact that over two-thirds of these households come from the manual social classes. It is not to be expected that resources would fully explain differences in living patterns, however. In the final analysis it may be necessary to accept that some households are doing without what most regard as necessities, themselves consider this to be due to lack of resources, but by societal norms have relatively comfortable incomes. To what extent is this a 'puzzle' or a problem for the researcher? As Mack and Lansley (1985) put it, any study on poverty and deprivation depends on generalisations about people's needs and circumstances

TABLE 14. *Characteristics of households below 60% income line and experiencing basic deprivation but having car or telephone*

Characteristics	*Households below 60% line and experiencing basic deprivation having:*	
	Car	*Telephone*
Household head aged:		
< 35	25.3	18.8
> 35 < 55	49.4	38.3
> 55	25.3	42.9
Married	87.4	71.7
Widowed	7.4	23.8
Single	5.2	4.5
Female	6.9	25.2
Rural	64.9	53.7

which will not fit every single individual (p.123). Poverty is not simply deprivation, and such diversity highlights the importance of employing an income as well as deprivation criterion in measuring what will generally be seen as exclusion due to lack of resources.

Non-essentials and housing deprivation

Finally, we may briefly consider two other issues. First, some of those at relatively low income levels and experiencing enforced basic deprivation still possess items which are not overwhelmingly regarded as necessities. Does this invalidate the contention that their deprivation is enforced—an issue to which Mack and Lansley paid a good deal of attention? We focus on two items which tend to receive particular attention—a car and a telephone. About 21 per cent of the households below the 60 per cent relative income threshold and experiencing basic deprivation own a car, 36 per cent have a telephone, and 12 per cent have both. Breaking down the households involved by some relevant characteristics, Table 14 shows that those owning a car are predominantly rural, middle aged and/or have children. Those having a telephone, by contrast, are more likely to be elderly and/or widow(er)s.

It would not be difficult to argue that, for many of the households involved, a car or a telephone could reasonably be regarded as a necessity—and many of the households say they regard them as such. Excluding all households who possess a car would make poverty largely an urban matter, and would certainly mean that almost no rural households with married, middle aged heads could be classified as poor. Similarly, excluding those with telephones would mean that

a considerably smaller number of elderly people would be so classified. It might, however, be worthwhile to consider the position of households which, despite current low income and basic deprivation, have particularly low overall scores in terms of secondary items lacked, and this will be pursued in future work.

Turning to the housing and housing-related items, we have seen that six out of seven are overwhelmingly regarded as necessities (the exception being the TV), and only a relatively small percentage of households lack each, with an even smaller percentage regarding this as enforced. What is the relationship between this housing-related deprivation, basic deprivation and resources, and where does it fit in to the measurement of poverty? The factor analysis itself shows that housing and basic deprivation are quite frequently experienced by different households. About 58 per cent of the households lacking one or more of the housing items also experience basic deprivation, 44 per cent are below the 60 per cent income threshold, and only 30 per cent are both below the 60 per cent income threshold and have basic deprivation scores of 1 or more.

Looking at the characteristics of the households experiencing enforced lack of one or more of the housing items but not both below the 60 per cent income threshold and experiencing enforced basic deprivation, what is striking is their distinctive demographic and geographic profile. Almost 60 per cent live in rural rather than urban areas, 50 per cent are headed by either a single person or a widow(er), and 80 per cent are either headed by such an individual or in a rural area. About one-third are elderly single or widowed persons. Quality of housing and housing-related durables for many of these households are probably determined by the combination of relatively low resources over a prolonged period and their marital status and location. These households report significantly lower current levels of financial strain than households below the income threshold and experiencing basic deprivation, and they also have substantially higher levels of savings.

As emphasised by Donnison (1988), housing is the sector in which welfare states have found it easiest to break the links between economic status and living standards[15]. This may mean that in many countries, taken alone or even together with low current income, measures of housing conditions are not particularly reliable indicators of generalised exclusion arising from lack of resources. Both the processes producing poor housing conditions, and the consequences of such deprivation, may be distinctive. Once again, this is an area for further investigation. The general point which it serves to illustrate, though, is that appropriate measures of deprivation will change over time and

vary across countries if the objective is to reflect exclusion, and thus what is not included is in a sense as significant as what is included[16].

CONCLUSIONS

This paper has looked at the implications of taking both current income and deprivation into account in measuring poverty. It has argued, following Ringen, that both elements are required if the poverty measure is to be consistent with the widely accepted definition put forward by Townsend, which related to exclusion from ordinary living standards due to lack of resources. It has also argued that simply adding together indicators of deprivation which may relate to different aspects or dimensions into a summary index may not be satisfactory. The importance of analysing the relationship between the various indicators, and between them and income/wider resources, was stressed, and the usefulness of factor analysis in this context illustrated.

Concentrating on a limited set of items relating to basic deprivation, households in a large representative Irish sample both experiencing such deprivation and below relative income thresholds were examined. Households distinguished as 'poor' in this way differ to a significant extent from those simply below current income thresholds. Households headed by a farmer, other self-employed or retired person are less important, and those headed by an ill or disabled person or someone in home duties more important, while those with an unemployed head continue to be the most substantial group. The characteristics of households at low incomes and not experiencing basic deprivation, and of those at higher incomes but experiencing such deprivation, were also analysed. The role of labour force experience and resources over a prolonged period, rather than simply current income, in determining current living standards was emphasised using sample data on annual income, savings and other assets.

Many questions are raised rather than resolved by the analysis. The 'inconsistent' groups, especially the high income households reporting deprivation, require more consideration. The best way in which to employ information on what have been termed social/other items, and possession of non-essentials, will have to be examined. Likewise the relationship between housing/durables and resources, and its implications both for assessing the position of households experiencing housing deprivation and for policy, need to be examined further. Moving from a point in time to the analysis of changes over time would raise a further host of questions about the way in which the deprivation and income criteria could or should reflect changes in the general standard

of living. All these issues arise with the framework of applying combined deprivation plus resources criteria to measuring poverty.

More fundamentally, though, following through this measurement approach serves to highlight features of the definition itself. Households are only to be categorised as 'poor' if they are both at low incomes—however defined—and experiencing deprivation and exclusion—again, however defined. We have seen that a very considerable number of households with current low incomes are not experiencing basic deprivation. Leaving aside the precise way in which deprivation is defined and measured, as well as the problems of measuring income accurately, it is clear that some households have current incomes which would *not* be adequate to avoid exclusion and deprivation, but manage to do so by running down accumulated resources and by borrowing and/or relying on help. Others may be able to avoid deprivation only by being particularly good managers of their limited resources[17].

This makes clear first of all that measuring exclusion due to resources will be informative as to what constitutes an 'adequate' income but is not identical to measuring it, and poverty defined in this way is by no means identical to income inadequacy[18]. It may also lead us to return to Atkinson's (1987) distinction between poverty as deprivation in terms of standard of living and poverty as concerned with *minimum rights to resources*. In terms of the latter, falling below the minimum adequate income level may be seen as a violation of rights even if it does not always or immediately result in deprivation.

This has obvious policy as well as conceptual and methodological implications. To give a concrete example, an analysis of panel data on US households by Ruggles and Williams (1989) showed that about one-third of those entering poverty—falling below the official poverty line—had sufficient savings to allow them to maintain their standard of living above that line through their full poverty spell, by running down savings to supplement income support. Whether we wish to call such households 'poor' or not, clearly social welfare policy will be concerned to provide income support to those with inadequate incomes even if they could not (yet) be categorised as 'excluded from ordinary living patterns'.

NOTES

1 Piachaud opened his 1987 review in this Journal by noting 'one thing does seem to have been clearly established: namely, that there must be a relative definition of poverty (p.148), dismissing Sen's arguments with respect to 'absolute' needs which are determined relatively as too vague to be of use. Ringen (1988) goes so far as to argue that no one has ever suggested that poverty is not relative, though Donnison (1988) produced some counter-examples.

2 For critical discussion of the various methods see for example Piachaud (1987), Callan and Nolan (1991).
3 See Piachaud (1981), Mansfield (1986), the defense by Desai (1986) and response by Piachaud (1987), Desai and Shah (1988), and the recent contribution by Hutton (1991), as well as Townsend and Gordon (1989).
4 See Mack and Lansley (1985), pp.175–83.
5 The indicators available to Ringen were whether someone has a telephone, had a holiday last year, occasionally had friends or relatives in, and had crowded or low standard housing.
6 On the basis of the relationship between income and expenditure rankings, and between them and whether the household lives in a council house or owns a car, video and freezer, McGregor and Borooah conclude that expenditure is a superior measure of welfare (p.67). As they emphasise, however, expenditure is an indicator of standard of living whereas income measures resources. The conclusion that expenditure is superior therefore depends in the first place on what one is trying to measure. Further, we argue that the type of indicators of deprivation available to them, related to housing and durables, are particularly weakly related to current income and not satisfactory as indicators of generalised exclusion.
7 The 1/0.66/0.33 scales are broadly those implicit in Irish social security payment rates; other scales tested were 1/0.7/0.5, used in the recent poverty study for Eurostat, and 1/0.6/0.4, closer to the scales often employed in British studies.
8 Items included in the ESRI survey which were not in Mack and Lansley's set were central heating, 'being able to save some of one's income regularly', and a daily newspaper.
9 Mack and Lansley (1985) found a similar though less marked divergence in the case of a television, and discuss at some length why it may come about (p. 54, pp.63–6).
10 For (i) and (ii) the respondent was the household manager (the person who buys most of the groceries for the household), while for (iii) it was the household head.
11 See Whelan *et al.* (1991), Ch. 5. Since there are a number of problems in the application of conventional factor analysis procedures to dichotomous items, Muthen's Generalized Least Squares procedures as incorporated in the LISCOMP package have been employed. The results in Table 3 were produced when a three-factor solution, which appeared the most satisfactory, was specified.
12 For example, 'presents for friends and family' and a hobby or leisure activity loaded about equally on 'other' and basic dimensions and were categorised with the former. 'Heating for the living room when it is cold' was included in the housing rather than the basic group to avoid 'double-counting' because the latter includes another, similar item ('having to go without heat through lack of money').
13 If separate summary indices are constructed for each set of items, the correlation between scores and current income is -0.33 for the basic items, -0.22 for the housing, etc, items, and -0.53 for the 'other' items.
14 The item relating to being able to afford an afternoon or evening out, though it could also mean different things to different people, to us has a higher level of face validity as an indicator of generalised deprivation, and in fact loads almost equally on the basic and 'other' dimensions. While respondents' views about whether this was a necessity were not sought in our survey, it is worth noting that Mack and Lansley found only 36 per cent in Britain regarded this item as a necessity (1985, p.66).
15 Donnison (1988, p.369) makes the point that Ringen's illustrative examples rely heavily on housing-related indicators in showing the weakness of the relationship between income and deprivation.
16 Similarly, analysis of the satisfaction of educational or health needs, which are largely organised outside the market in many countries, would complement the study of exclusion from marketable goods and services. This may be done most productively by examining the relationship between poverty measured in this way and health/education status, rather than incorporating the latter in the poverty measure itself.

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17 See Piachaud's (1987) discussion of the importance of budgeting practices, noting the tendency to treat this as taboo.

18 One promising approach would involve focusing on those sub-groups for whom current income appears to be a reasonably adequate measure of resources available, and attempting to identify the income level at which they typically avoid enforced deprivation of basic items.

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