



Office of the

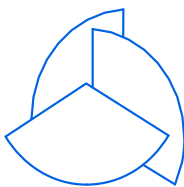
**First Minister and
Deputy First Minister**

www.ofmdfmini.gov.uk

Poverty and Social Exclusion Project

**Overlaps between different poverty measures
Paddy Hillyard and Fiona Scullion**

Bulletin No 8 December 2005



Northern Ireland
**Statistics &
Research**
Agency

Introduction

This bulletin will examine the different measures of poverty and explore the overlaps between them. It will also consider the socio-demographic characteristics of households who are poor on one or more of these measures. It is based on the analysis of the Poverty and Social Exclusion Survey which was carried out in 2002/2003¹ which included some 1976 households.

The issue of overlap between income measures and direct deprivation or direct outcome measures of poverty has been explored by Perry (2002).² Bradshaw and Finch (2003) have examined the overlap between income, subjective and deprivation measures.³ They argue that those captured by more than one measure are likely to be experiencing a harsher degree of poverty than those poor on one measure alone and therefore should be a priority for policy. This bulletin explores the overlap between four different measures.

The measures

1. Consensual Measure of Poverty

This measure is based upon the lack of socially perceived necessities. Items considered by 50 per cent or more of a random sample of the population to be necessities were used together with low income to determine a poverty threshold.

¹ The PSENI was designed and directed by Professor P. Hillyard, Professor E. McLaughlin and Mr M. Tomlinson, Queen's University Belfast. The project originated and was funded by OFMDFM and HM Treasury.

² Perry, B. (2002) The Mismatch between Income Measures and Direct Outcome Measures of Poverty, *Social Policy Journal of New Zealand*, Issue 19, Ministry of Social Development, pp 1-34.

³ Bradshaw, J. & Finch, N. (2003) Overlaps in Dimensions of Poverty, *Journal of Social Policy*, 32 (4) 513-525.

Households lacking three or more necessities were defined as poor. This measure therefore incorporates an income measure to the extent that it is used, along with deprivation items, to distinguish between the poor and the non-poor.

2. Subjective Measure of Poverty

This measure is based upon whether or not people feel they are living in poverty. The household respondent was asked "how many pounds a week after tax do you think it is necessary to live on?" They were then asked "how far below that level would you say your household is?" Those respondents who believed they lived a lot or a little below the adequate level of income were defined as being subjectively poor. Those who answered about the same, a little above or a lot above the adequate level of income were defined as not poor.

3. Income measure

There are a number of different income based measures. The one used here is now the conventional method for measuring poverty throughout the UK and the European Union. It is defined as all households with a net equivalent household income less than 60% of the median. While traditionally it is represented in terms of both before and after housing costs, here it is defined solely before housing costs because there was inadequate information to provide an estimate after housing costs. 'Equivalent' household income refers to the method of weighting incomes in terms of the different compositions of households for the purposes of comparison. The OECD scale, which is the scale used for the presentation of all income data in Europe, has been used in this analysis.

4. Consistent Measure of Poverty (Republic of Ireland)

This measure of poverty, which is used in the Republic of Ireland, combines two

factors and assesses whether households are below both an income threshold and suffer from an enforced lack of one of eight necessities. Households are described as poor when the income is below 60% of the median income and they lack one or more of the eight necessities.

It is important to emphasise that both the consensual and consistent measures of poverty employ income in constructing the measures, although to differing extent. In the consensual measure it is used in a multivariate technique to separate the population into two groups, the poor and the non-poor. In the consistent measure the income scale is combined with the necessities' scale.

The extent of poverty on the four measures

The proportion of households who are defined as poor, using each of these measures, are shown in Table 1.

Table 1. Risk of poverty on each of the measures

	% poor
Subjective Measure	32
Consensual Measure	30
Income Measure	23
Consistent Measure	6

As can be seen, the proportion at risk of poverty varies greatly according to which measure is used. The proportion of households in poverty varies from 6 per cent to 32 per cent over the four measures. The highest rate of poverty is obtained by the subjective measure (32%) followed by the consensual measure (30%) and the Income measure (23%). The lowest risk of poverty is shown on the consistent measure (6%).

Who are the poor?

Each of the measures captures not only a different number of households but also reflects the fact that they vary greatly in their characteristics, as can be seen in Table 2. The table shows considerable variation in the characteristics of the poor on each of the measures. For example, on the income measure, 23 per of poor households are pensioner households compared with 17 per cent on both the subjective and the consensual measures. Similarly, retired households form 27 per cent of all households on the income measure but under 21 per cent on all the other three measures. The proportion of owner-occupiers with mortgages who are poor also varies across the measures. Some 30 per cent of all households with mortgages are poor on the subjective measure compared with 20 per cent on the income measure and 13 per cent on the consistent measure.

Table 2: The characteristics of the households who are poor on each of the four measures.

	Consensual N=582	Subjective N=633	Income N=451	Consistent N=108
Gender				
Male	38.7	40.5	39.3	42.6
Female	61.3	59.5	60.7	57.4
Household Type				
Pensioner	17	17	23	11
Childless	26	28	24	32
Couple	15	16	17	14
Lone Parent	17	15	16	19
Family	25	24	20	23
Number of children in household				
None	57	60	64	57
One	19	18	16	24
Two	12	11	10	10
Three or more	12	11	10	9
Housing Tenure				
Owned Outright	18	22	24	13

Ireland, overlaps with each of the other measures of poverty. Two points are considered: 1) What are the characteristics of the households who are poor on two measures? 2) What are the characteristics of the households who are captured by one of these measures but not by two?

Overlap between Consensual and Subjective measures

Some 71 per cent of those who are defined as being poor using the consensual measure are also subjectively poor. This group makes

up 21 per cent of the whole sample (N=415). Table 4 suggests that households in poverty on both measures are more likely than the other two categories – poor on subjective but not on consensual and poor on consensual but not poor on subjective – to be female, lone parents, live as social or private renters and reside in the most deprived and second most deprived areas of Northern Ireland. In addition, they are much more likely to be made up of households without anyone working.

Table 4. Characteristics of Households who are poor on Consensual and Subjective Measures.

	Poor on both measures N=415	Poor on Subjective but not Consensual N=218	Poor on Consensual but not Subjective N=168
Gender			
Male	37.9	45.5	40.5
Female	62.1	54.6	59.5
Household Type			
Pensioner	16	17	20
Childless	26	31	25
Couple	14	20	17
Lone Parent	19	9	12
Family	25	23	26
Number of children in household			
None	56	68	61
One	20	15	16
Two	12	10	13
Three or more	12	7	10
Housing Tenure			
Owner Occupied	42	73	51
Private Renter	16	9	14
Housing Association	4	1	3
NIHE	39	17	32
NOBLE Deprivation			
Most Deprived	39	23	25
Second	20	24	21
Third	15	17	20
Fourth	13	16	19
Most Affluent	12	20	16
Workers in Household			
No workers	40	15	23
At least one worker	41	64	53
Retired	19	21	24

Overlap between Consensual and Income measures

Some 48 per cent of those who are poor on the consensual measure are income poor (OECD 60% Median), and this represents 14 per cent of all households (N=277). Comparative analysis of the three groups of households in Table 5 reveals households defined as poor on both of the measures are evenly split between three household types – childless, lone parents and families and are more likely to be social renters. In addition, those households that are poor on both

measures are also more likely to live in the most deprived areas of Northern Ireland than those who are poor on the income measure but not on the consensual measure or poor on the consensual measure but not the income measure – 24 and 31 per cent respectively. Some 54 per cent of households defined as poor on both measures contain no workers. In contrast, 17 per cent of households poor on the consensual measure but not on the income measure and 14 per cent of households poor on the income measure but not on the consensual measure contain no worker.

Table 5. Characteristics of Households who are poor on Consensual and Income Measures.

	Poor on Both Measures N=277	Poor on Income but not Consensual N=174	Poor on Consensual but not Income N=306
Gender			
Male	37.3	42.5	39.9
Female	62.7	57.5	60.1
Household Type			
Pensioner	16	34	19
Childless	24	26	28
Couple	14	20	15
Lone Parent	23	5	11
Family	23	16	27
Number of children in household			
None	54	80	61
One	21	9	17
Two	13	5	11
Three or more	12	6	11
Housing Tenure			
Owner Occupied	32	68	58
Private Renter	19	15	11
Housing Association	5	2	3
NIHE	46	15	28
NOBLE Deprivation			
Most Deprived	39	24	31
Second	21	21	20
Third	16	17	18
Fourth	16	20	14
Most Affluent	9	18	17
Workers in Household			
No workers	54	15	17
At least one worker	27	45	61
Retired	19	40	22

Overlaps between Consensual and Consistent Measures

Fifteen percent of those defined as poor on the consensual measure of poverty are also poor on the consistent measure; this is 5 per cent of all households in the survey (N=88). Only 1 per cent were poor on the consistent measure but not on the consensual measure (N=20) and therefore the figures should be treated with considerable caution. Table 6 indicates that there are some notable differences between those households defined as poor on both measures and the other households not captured in the

overlap. Half of the households defined as poor on both measures live in accommodation rented from the Northern Ireland Housing Executive, 40 per cent reside in the most deprived areas of Northern Ireland, two thirds contain no workers and 47 per cent have at least one child in the household.

The households that are poor on the consistent measure of poverty and not the consensual are more likely to contain no children, be owner occupied and have at least one worker in the household.

Table 6. Characteristics of Households who are Poor on Consensual and Consistent Measures.

	Poor on Both Measures N=88	Poor on Consistent but not Consensual N=20	Poor on Consensual but not Consistent N=495
Gender			
Male	40.9	50.0	38.3
Female	59.1	50.0	61.7
Household Type			
Pensioner	10	15	19
Childless	29	45	25
Couple	14	15	15
Lone Parent	22	10	16
Family	25	15	25
Number of children in household			
None	53	75	58
One	24	25	18
Two	13	0	12
Three or more	10	0	12
Housing Tenure			
Owner Occupied	19	55	49
Private Renter	23	10	14
Housing Association	8	5	3
NIHE	50	30	34
NOBLE Deprivation			
Most Deprived	40	30	34
Second	17	20	21
Third	17	25	17
Fourth	17	15	14
Most Affluent	9	10	14
Workers in Household			
No workers	66	30	29
At least one worker	20	45	49
Retired	14	25	22

Overlap between measures and social exclusion

Social exclusion is strongly linked to poverty. Two types of social exclusion were explored: labour market exclusion and service exclusion. Labour market exclusion is defined as those households with no workers in the household; this included the unemployed and also those who were economically inactive due to reasons of illness/disability and/or looking after the home/family. Service exclusion is defined as those households who are excluded from four or more of the private and public

services because they could not afford them. Table 7 shows that there are considerable differences in the proportion of households who are excluded from the labour market on each of the four measures, with 59 per cent being excluded on the consistent measure and only 31 per cent on the subjective measure. Labour market exclusion appears to be very central to consistent poverty but less so for the other measures. Service exclusion on the other hand is stable between measures. This suggests that service exclusion may be a better or more consistent reflector of the social impacts of poverty

Table 7. Social Exclusion and the poor.

	Consensual	Subjective	Income	Consistent Poverty
Labour Market Excluded	35	31	39	59
Service Excluded – <i>Lacking four or more services</i>	58	55	59	59

This analysis of overlaps between the measures shows there are considerable differences in the proportion of households on different combinations of measures but not poor on one or other of the measures. Similar findings are found in relation to social exclusion.

Bradshaw and Finch (2003) note some possible explanations for the lack of overlap between the measures and the differences in the characteristics of the households: there are cases in transition with some households moving in and out of poverty; some people may claim to be in poverty on the subjective measure when they are not, while some, such as pensioners, may claim not to be in poverty whereas they may be on some of the other measures; and there are a number of technical measurement issues with all four measures.

There are several other reasons for the specific lack of overlap between the income

measure and other measures. Income is notoriously difficult to measure particularly for those who are self-employed or who make a living from the ‘black’ economy and it is difficult to make assessments about the benefits of non-monetary goods and services supplied by the state, such as free housing or education. Different individuals and households will vary in their ability to cope on the same amount. In addition, the ability to borrow or draw on existing savings will vary greatly between households.

Given the lack of overlap, Bradshaw and Finch (2003) ask: is it possible to identify a specific group who are reliably and validly poor? They suggest two approaches: a cumulative approach and an approach based on merit. The basic assumption of the cumulative approach is that the more measures that define a household as poor, the more likely that the household is living in poverty. It should be noted that there is not a theoretical maximum of measures

because as more are included the percentage who are poor will reduce. If this does not happen then the measures would be highly correlated and adding another measure would be of little value. The merit approach asks whether there is some good reason why one measure is better than another to form the basis of a new combination. Here, we consider only the cumulative approach.⁴

Cumulative Approach

The cumulative approach involves combining different measures. Table 8 notes the characteristics of households who are cumulatively poor on three and four measures and those who are not poor on any. Those that are poor on three or four measures differ from the consensual, subjective and income measures alone but show similar patterns to the consistent poverty measure (See also Table 2) This is purely a function of the method adopted. The separate measures act like 'filters' with the consistent measure being the most fine grained. Both the cumulative measures show higher percentage of no worker households, and lower numbers of retired. They also show higher percentages of households living in NIHE stock and in the most deprived areas. In comparison, households who are not in poverty on any of the measures are more likely to contain no children, live in owner occupied homes, have at least one worker and live in the most affluent areas of Northern Ireland.

⁴ The merit approach is complex and is not analysed here.

Table 8. Characteristics of the Poor on cumulative measures

	Poor on Consensual, Subjective and Income N=224	Poor on Consensual, Subjective, Income and Consistent N=70 [small numbers]	Not Poor on any N=1047
Gender			
Male	37	41	49
Female	63	59	51
Household Type			
Pensioner	13	10	19
Childless	24	29	24
Couple	14	16	24
Lone Parent	25	23	2
Family	25	23	31
Number of children in household			
None	51	54	67
One	21	24	13
Two	14	10	14
Three or more	14	12	6
Housing Tenure			
Owned Outright	16	9	34
Owned with Mortgage	13	9	53
Private Renter	20	24	7
Housing Association	5	7	1
NIHE	45	51	5
NOBLE Deprivation			
Most Deprived	42	41	13
Second	21	17	15
Third	14	17	17
Fourth	16	16	23
Most Affluent	7	9	32
Workers in Household			
No workers	57	66	3
At least one worker	27	20	77
Retired	16	14	20

As can be seen in Table 9, households who are cumulatively poor are very different in their patterns of social exclusion from the labour market than those who are not poor. For example, some 57% of the cumulative poor on three of the measures are excluded

from the labour market compared with 31 per cent for example of the Subjective Measure. There are minimal differences on households being excluded on the basis of the services they receive.

Table 9. Social Exclusion and the Poor

	Poor on Consensual, Subjective and Income measures	Poor on all 4 measures	Not Poor on any
Labour Market Excluded	57	66	3
Service Excluded <i>Lacking four or more services</i>	60	59	45

As with the Bradshaw and Finch (2003) study, these results suggest that the cumulative method does differentiate between those who are poor cumulatively and those who are poor on one or two measures and also between those who are poor and those who are not poor. It should be pointed out, however, that income is having a strong impact in this analysis because it forms a part of both the consistent and the consensual measures. Bradshaw and Finch did not use the consistent measure and, instead of the consensual measure, they used a deprivation measure based on the lack of four or more adult necessities and therefore this element is missing in their analysis.

Conclusion

This bulletin has examined the overlap between a number of measures of poverty. It has shown that, as in England and Wales, there is little overlap in the households defined as poor on the four measures used in the PSE study. Moreover, the characteristics of the cumulatively poor are very similar in both jurisdictions: they are more likely to be women, lone parents and people not in the work force and they are less likely to be retired or pensioners. The cumulative approach appeared to distinguish the poor more from the non-poor, as it did in Great Britain. The lack of overlap, as Perry (2002) has pointed out in a review of the relevant

literature on the relationship between income and deprivation measures, is also a characteristic of many different countries.

The lack of overlap is not unexpected. All the approaches are measuring poverty but from different conceptual bases and with different methodologies. It is clear from the evidence presented here that the measures are describing very different sub-groups in the population.

The analysis suggests that it is important that all four measures of poverty should be used in any analysis of poverty and social exclusion in Northern Ireland as each will have very different policy implications and each may respond differently to different policy interventions.⁵

⁵ Our thanks to DN and DQ – two anonymous referees - for most helpful comments.