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New TSN Research: Poverty in Northern Ireland

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Poverty in Northern Ireland

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Executive Summary

Background

- 1 This report has been commissioned by OFMDFM as part of the research and evaluation strategy for the Government's New Targeting Social Need (New TSN) initiative. The rationale for the report is the considerable need that exists to draw together data from a range of government sources in order to present a picture of poverty with a view to understanding the complexities of social disadvantage in Northern Ireland. The objectives of the study are as follows:
 - To **review availability of government data** which could be used to provide an overview of poverty in Northern Ireland;
 - To **identify information gaps** in data relating to mapping poverty and to suggest possible remedies to fill such gaps;
 - To assess the potential of establishing a **baseline of poverty** from data sources;
 - To **provide an indicative framework** for the development of **indicators of poverty** in Northern Ireland;
 - To make **recommendations** for future data collection and a critique of existing data.

Structure of the Report

- 2 **Section 2** contains a review of the policy context, with the aim of specifying a set of objectives for a New TSN poverty indicators framework.
- 3 **Section 3** reviews options for the measurement of poverty. This Section also considers the availability of data in Northern Ireland for this purpose.
- 4 **Section 4** considers a number of models for a poverty indicators framework, providing a set of 'best practice' templates for assessing the current availability of data for a poverty indicators framework in Northern Ireland.

- 5 The next two Sections of the report focus specifically on Northern Ireland, with a view to assessing the establishment of a baseline of poverty within the context of New TSN, as follows:
- **Section 5** considers the possibility of establishing a baseline profile of people on low incomes.
 - **Section 6** discusses key policy areas such as unemployment and employability, health, education and housing.
- 6 Based on a synthesis of the above, **Section 7** presents proposals for the specification and implementation of a New TSN indicators framework.

Key Findings

- 7 The key issues to be addressed in preparing a picture of poverty can be summarised as follows:
- **Identification and measurement** – How many people are poor? What is the trend in the number of poor people?
 - **A profile of the poor** – What are the key characteristics of the poor? What groups are most at risk of poverty? Where do the poor live?
 - **Scale and scope** – How entrenched or persistent is the problem?
 - **Multiple dimensions** – What factors are associated with poverty? How do these relate to key policy areas?
- 8 The main findings in relation to the availability of data for presenting such a picture of poverty for Northern Ireland are as follows.

Identification and measurement

- 9 Poverty assessment has strong political ramifications. As Fellegi (1997) rightly points out, definitions of poverty are fundamentally political and there can be no 'objective' neutral definition. This is because poverty is intrinsically a question of social consensus, at a given point in time and in the context of a given country. It is through the political not the

research process that democratic societies achieve social consensus in domains that are intrinsically judgmental; it is not possible to decide between the different methods for measuring poverty on purely objective criteria.

- 10 The report reviews a number of the many different methods for identifying and measuring the extent of poverty. The simplest is the relative income line approach which identifies the poor as those whose incomes fall below some cut-off point, such as half average income. The basic data requirement is information on the distribution of income, adjusted for household size and composition.
- 11 This approach can be implemented in Great Britain using the results of the Family Resources Survey (FRS). However, the FRS has not to date been undertaken in Northern Ireland. While a Northern Ireland FRS will be launched in Spring 2002, results will not be available until mid-2004. Hence, there is presently a gap in the availability of data for measuring relative income poverty in Northern Ireland. For various reasons, it is not feasible at this time to use the NI Family Expenditure Survey (FES) to fill this gap on a basis consistent with the approach used in Great Britain.
- 12 While it possesses undoubted strengths, nonetheless the relative income line approach to poverty identification and measurement also suffers a number of limitations. Many of these weaknesses can be addressed by adopting a combined income-deprivation approach to poverty measurement, exemplified by the recent Poverty and Social Exclusion (PSE) study for Great Britain and the Irish approach developed over a number of years by researchers at the Economic and Social Research Institute (ESRI).
- 13 The data necessary to implement such a combined income-deprivation approach do not currently exist in Northern Ireland. Original research will have to be conducted in order to prepare a baseline position.
- 14 In light of the above, the report relies on proxy indicators to assess the current position with respect to the incidence of low incomes in Northern Ireland. A range of indicators based on currently available data are presented in Section 5 of the report. Based on these

indicators, it is concluded that the NI proportion below the Great Britain average income (after housing costs) is in the region of 27-30 per cent. This compares with 25 per cent for Great Britain.

Profile

- 15 The absence of a Northern Ireland version of the FRS is a major constraint on the availability of data for providing a baseline profile of poverty for Northern Ireland. It has, however, proven possible to make use of the Continuous Household Survey (CHS) to present a profile of people on low incomes in Northern Ireland. The CHS cannot be used to estimate mean incomes. Nonetheless, it is feasible to use the CHS income question to identify households with gross household incomes in the bottom 30 per cent of the NI income distribution, suitably adjusted for household size and composition.
- 16 Section 5 of the report presents selected socio-economic and demographic characteristics of people on low incomes. The results are broadly comparable to similar types of analysis for Great Britain. For example, when analysed by family type, it is found that the risk of living in a low income household is highest for families comprised of a single parent with dependent children (77 per cent) and lowest for non-pensioner couples without children (12 per cent). Similarly, the results by economic status of the family show a clear contrast between 'work-rich' and 'work-poor' households; 84 per cent of people living in families headed by an unemployed person were in the bottom 30 per cent of the income distribution, compared to less than ten per cent for families with more than one person in a job.
- 17 In addition to a profile for all individuals, separate profiles are presented for:
- Children.
 - Working-age adults.
 - Pensioners.
- 18 Additional tabulations based on the CHS data are presented in Appendix E of the main report.

Scale and scope

- 19 There does not currently exist in Northern Ireland an appropriate dataset for the analysis of the extent to which people experience poverty or low income on a persistent basis over an extended period of time. This contrasts with Great Britain, where the British Household Panel Study (BHPS) is now being used to undertake studies of the dynamics of low income.
- 20 The situation in Northern Ireland is set to improve, as it is anticipated that a Northern Ireland version of the BHPS will be introduced in 2002. However, it will be a number of years before this data source can make a contribution to the analysis of poverty in Northern Ireland.

Multiple dimensions

- 21 In the specific context of Northern Ireland, there is a clear need for the development of a set of overall indicators of social disadvantage and poverty based on groups and individuals to set alongside the highly detailed area-based Measures of Deprivation. This is because, no matter how well they are constructed, all spatially based measures of deprivation are subject to two basic limitations:
- Not all of those who live in disadvantaged areas are themselves disadvantaged.
 - Not all disadvantaged people live in disadvantaged areas.
- 22 This study is therefore complementary to the NI Measures of Deprivation, for two reasons:
- It is concerned with poverty and disadvantage as experienced by **individuals and groups of individuals**.
 - The NI Measures of Deprivation are designed for small area analysis and/or for distinguishing poor from non-poor **areas** at detailed spatial scales such as ward or enumeration district.
- 23 While New TSN is largely delivered 'on the ground' via individual Departmental Action Plans, nonetheless there is a need for co-

ordination in the key areas of identification of greatest need, targeting resources and effort and monitoring, evaluation and policy analysis. The specification and implementation of a poverty indicators framework will play an important role in that context.

24 To help meet these requirements, the report specifies a thematic framework for key policy areas that is consistent with the NI Measures of Deprivation, but with a focus on low income groups and individuals rather than areas. To implement this framework, a feasible set of 21 indicators are proposed across the domains of the NI Measures of Deprivation, as follows:

- Unemployment;
- Employment;
- Health and social well-being;
- Education;
- Geographical access to services;
- Social environment; and,
- Housing.

25 These indicators are discussed in Section 6 of the report.

Summary of present position

26 To summarise the above:

- A wide range of data sources exist for the analysis of various aspects of poverty and low income in Northern Ireland.
- The availability of data for the analysis of people on low incomes will greatly improve with the introduction of the Family Resources Survey.
- The major gap that needs to be filled is the absence of a deprivation perspective, based on the enforced lack model utilised by both the PSE and the ESRI.
- This gap needs to be addressed both in the short-term, to facilitate a fuller picture of poverty in Northern Ireland, and over the medium-term in order to build up a picture of poverty trends.

27 These issues are considered in the report by means of a proposed data collection strategy under the following headings:

- Options for establishing an interim position.
- Options for the medium term

Recommendations

28 The following are the main recommendations made in the report.

Identification and measurement

29 Regarding the identification and measurement of poverty, the main recommendation is the adoption of a mixed income-deprivation approach. Implementing this recommendation raises problems of data availability, especially on the deprivation side, both in respect of the baseline position and beyond. For that reason, a number of options are identified and the strengths and limitations of these are discussed in the report.

30 The non-availability of trend data is addressed by proposing a number of proxy indicators. These indicators focus on participation in the labour market and receipt of benefit. They are listed in Section 5 of the report.

Profile

31 It has been possible to devise a methodology for profiling people on low income, based on the bottom 30 per cent of the CHS income distribution. While the approach has a number of limitations, it provides a surrogate baseline position in the absence of a Northern Ireland version of the Family Resources Survey.

32 In principle, the CHS profile could be augmented by Family Expenditure Survey (FES) data. While it is recognised that there are limitations to the use of the FES, nonetheless the feasibility of using the FES should be further investigated.

- 33 The data currently available for profiling people on low incomes lacks a deprivation dimension. The need for profiling needs to be considered in assessing options for an income-deprivation approach to poverty identification and measurement, both for the interim baseline position and over the medium term.
- 34 The profiling by location needs to be by deciles of the NI Measures of Deprivation as well as by standard geographical areas such as, for example, Health Boards. In the CHS this could be facilitated by developing an identifier for a respondent's location according to the deciles of the NI Measures.

Scale and scope

- 35 The analysis of the depth of poverty requires income distribution information similar to that derived from the FRS and currently published for Great Britain in the DSS Households Below Average Income series. The use of the FES for this purpose in Northern Ireland should be further considered.
- 36 Analysis of the persistence of low income will not be available from the BHPS for some time. In the interim period, it will be necessary to rely on proxy data. Relevant indicators are proposed in Section 5 of the report, specifically the length of time on a means-tested benefit. The use of this indicator should be supplemented by information on the destinations of those leaving long-term means-tested benefit and returns to benefit. Greater use could be made of existing Department of Social Development databases. For examples of what is possible using these datasets, see the papers on Joblessness and Poverty and on measuring social exclusion and poverty at www.dsdni.gov.uk/srb/dsdqub_research.ntml.

Multiple dimensions

- 37 Reflecting the dearth of research that has to date occurred in providing a picture of poverty in Northern Ireland, there will be a need to develop a research agenda designed to better understand the correlates of poverty. This can commence immediately by further profiling from the CHS, including statistical analysis of factors correlated with the risk of

low income. The longer term research agenda will undoubtedly seek to incorporate the deprivation dimension, but this work must await the collection of relevant survey data.

- 38 In order to reflect the key concerns of New TSN, and also to ensure complementarity with the NI Measures of Deprivation, the thematic framework proposed for key policy areas is based around the seven domains of the NI Measures of Deprivation. In addition to a range of low-income indicators, a set of 21 feasible indicators has been proposed for the six thematic areas of employment, health, education, geographical access to services, social environment, and housing (Section 6). This minimum set has been specified to provide a focus on key issues of concern from the perspective of facilitating a 'macro-level' perspective on New TSN. The indicator set can be augmented as the data infrastructure expands and understanding is enhanced through further research.

Reporting

- 39 The final recommendation is that it would be desirable to produce a Poverty Report on a regular basis. This would help to:
- Give impetus to the anti-poverty theme in New TSN.
 - Enhance the level of understanding of poverty amongst interested parties.
 - Assist with the co-ordination and evaluation of the New TSN initiative.
 - Provide a focus for public debate.

Concluding remarks

- 40 This report has sought to take stock of how best to utilise available data to present a picture of poverty in Northern Ireland. The conceptual approach adopted has been based on a mixed income-deprivation approach to poverty measurement.
- 41 One of the key findings has been that there are many gaps in the availability of data to present a baseline picture of poverty, especially

for the analysis of people on low incomes. Nonetheless, a considerable volume of data currently exists that can be utilised to meet some of the requirements for a poverty indicators framework, including especially the profiling of people on low incomes and the use of various survey and administrative databases across key policy areas.

- 42 The quantity and quality of data for poverty assessment will undoubtedly improve in the medium term with the introduction of the NI FRS. This will still leave a gap in the identification and measurement of poverty, specifically the incorporation of a deprivation dimension. This can be addressed. But such data needs to be analysed to redress the current relative lack of poverty-related research in Northern Ireland, thus helping to make best use of evaluation and research data to strengthen the development and implementation of New TSN.

1 Background

Introduction

1.1 This report has been commissioned by OFMDFM as part of the research and evaluation strategy for the Government's New Targeting Social Need (New TSN) initiative. The primary aim of the report is to examine, through the utilisation of available data sources, poverty levels across key policy areas within Northern Ireland and to assess the potential of establishing a baseline of poverty.

1.2 New TSN aims to reduce levels of disadvantage and poverty by directing resources and efforts towards those individuals, groups and areas objectively defined as being in greatest need. While the initiative is particularly focused on combating the problems of unemployment and on increasing employability, it also seeks to address inequalities in areas such as health, education and housing. The broad scope of New TSN is reflected in the Programme for Government, which states that:

We recognise the inequalities in the life experiences of our citizens in terms of poverty, health, housing, educational and economic opportunity and we are determined to tackle them.

1.3 There is some evidence that, historically, poverty levels have been higher in Northern Ireland than in other parts of the UK. In his monumental work on poverty in the United Kingdom, Townsend (1979: 284) calculated that the proportion of the population living in households with incomes on or below the margins of poverty¹ was considerably higher in Northern Ireland than in any other UK region. More recently, based on comparative analysis of Family Expenditure Survey data, McGregor and McKee (1995) suggest that income poverty² is more prevalent in Northern Ireland than in the rest of the UK.

1.4 Similarly, Northern Ireland's higher rate of unemployment and lower levels of economic activity would also indicate that poverty has been more pronounced here than in Great Britain. This is supported by Hills' (1998) analysis of trends in income and wealth, suggesting that the steep rise in unemployment during the 1980s and the associated

increase in the incidence of workless households played a major role in the sharp growth of income inequality that occurred in the UK from 1979 to the early-1990s (see also Oppenheim and Harker, 1996).

- 1.5 Notwithstanding the above, there has nonetheless been a dearth of research into the specific problems of poverty and low incomes in Northern Ireland and the features and characteristics of people in poverty. Partly, this reflects significant deficiencies in the availability of data for the analysis of poverty in Northern Ireland.
- 1.6 Unlike the other regions of the UK, Northern Ireland is not included in the DSS's annual reports on Households Below Average Income (HBAI). This is because of Northern Ireland's absence from the Family Resources Survey. As discussed later in this report, this deficiency is likely to be resolved in the medium term. But at the present moment we do not have regular and timely information on such key indicators as the proportion of individuals living in households with incomes below half the average.
- 1.7 A further consequence is that Northern Ireland lacks the kind of poverty profiles and analysis frameworks that have been developed for Great Britain (e.g. DSS, 1999, 2000a; Howarth *et al*, 1999; Gordon *et al*, 2000), the Republic of Ireland (e.g. Layte *et al*, 2001) and increasingly across the European Union (e.g. Gordon and Townsend, 2000; Hallerod, 1995; Whelan, Layte and Maître, 2000).
- 1.8 The major thrust of New TSN is the skewing of resources towards the greatest objective need. Poverty is a fundamental component of objective social need, and the lack of a Northern Ireland specific poverty profile and analysis framework must be considered to represent a significant gap in the implementation of the initiative. Considerable progress has been made in the identification of **areas** of multiple deprivation (e.g. Robson, 1994; Noble *et al*, 2001), but there remains an absence of an overarching perspective on poverty and disadvantage as experienced by **groups** and **individuals**. To that extent, there is clearly a considerable need to draw together data from a range of government sources in order to present a picture of poverty with a view to understanding the complexities of social disadvantage in Northern Ireland.

Objectives of the Research

1.9 In light of the above, the objectives of this study are as follows:

- To **review availability of government data** which could be used to provide an overview of poverty in Northern Ireland;
- To **identify information gaps** in data relating to mapping poverty and to suggest possible remedies to fill such gaps;
- To assess the potential of establishing a **baseline of poverty** from data sources;
- To **provide an indicative framework** for the development of **indicators of poverty** in Northern Ireland.

1.10 In meeting these objectives, the report should provide recommendations for future data collection and a critique of existing data.

Key Issues

1.11 At this juncture, it is useful to reflect on the requirements of the study from the general perspective of an indicative framework of poverty indicators. The key questions that a poverty framework needs to address are set out in Box A.

Box A

Components of a poverty indicators framework

- **Identification and measurement, that is:**
 - How many people are poor?
 - Trends – is the number of poor people rising or falling?

 - **A profile of the poor, that is:**
 - Who are the poor? What are their key socio-demographic characteristics - age, gender, type of family unit, economic status, and so on?
 - The distribution of the risk of poverty - what individuals and groups are most likely to be poor?
 - In what groups is poverty most highly concentrated?
 - Where do the poor live? Are they concentrated in particular geographical areas?

 - **The scale and scope of the problem, that is:**
 - What is the depth of their poverty? For example, what is the average size of the gap between the resources of people in poverty and the level required to meet their needs?
 - How entrenched or persistent is the problem? What proportion of poor people have been consistently in poverty over some extended period of time? What is the likelihood of a household entering into or exiting from poverty in any given period of time? Are most of the poor temporarily in this position?

 - **The multiple dimensions of poverty, that is:**
 - What are the correlates of poverty?
 - What are the needs that must be addressed to reduce the problem?
 - How are these related to key policy areas such as employability, health, education, housing, and so on?
-

1.12 Broadly speaking, we want to know (see for example Lok-Dessalien, 1999):

- How many people are poor?
- What are their key characteristics?
- Why are they poor?
- What are the policy implications?

1.13 The questions may be simply put, but it is not at all straightforward to provide answers. Partly, this is a question of definition. Poverty must be defined before it can be measured.

1.14 Traditionally, poverty has been defined in either absolute or relative terms. The former approach assumes that it is possible to define some level of purchasing power per person or per family that is deemed to be sufficient to buy a minimum of life's necessities. A relative definition classifies people as living in poverty according to some yardstick based on what society considers a generally acceptable 'standard of living'. This could, for example, be defined as some fraction of national average income per person.

1.15 The distinction between 'absolute' and 'relative' definitions of poverty is, however, inevitably blurred. What society considers a 'minimally sufficient' bundle of necessities will necessarily change over time (Oppenheim and Harker, 1996). Similarly, what is considered a 'sufficiency' in one country may be wholly inadequate in another part of the world³. That is, an 'absolute' definition of poverty is inherently relative over both time and space. As Piachaud has noted:

Close to subsistence level there is indeed some absolute minimum necessary for survival but apart from this, any poverty standard must reflect prevailing social standards: it must be a relative standard. (Piachaud, 1987: 148).

1.16 Probably the most influential attempt to enunciate a relative definition of poverty with general applicability is that put forward by Peter Townsend:

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 which are customary, or at least widely encouraged or approved, in the societies to which they belong. Their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities. (Townsend, 1979: 31).

1.17 Townsend's definition of poverty has broad applicability and provides a reasonable point of departure for the analysis of poverty in a developed country such as the UK. The real difficulty arises in attempting to operationalise Townsend's definition so as to identify 'the poor' (Borooah *et al*, 1991; Nolan and Whelan, 1996a, 1996b). Many issues need to be addressed, such as:

- How are 'resources' to be measured?
- How do we define 'seriously below' the average?
- What are the 'ordinary living patterns, customs or activities' from which poor people are excluded due to lack of resources?

1.18 There are different ways of answering these questions, as evidenced by the vast literature that currently exists on the definition and measurement of poverty in both developed and developing countries (e.g. Boltvinik, 1999, for a summary of poverty measurement methods). Critically, the way in which these questions are answered involves both conceptual choices as well as more pragmatic measurement issues (Nolan and Whelan, 1996a: 13). Thus, there are options to be considered in specifying and implementing a poverty indicators framework.

1.19 It is, however, important to bear in mind that whatever option is recommended for Northern Ireland needs to reflect the New TSN policy context, including the rationale, aims, objectives and implementation of the initiative. That is, we need to articulate a set of objectives for a New TSN poverty indicators framework to assist in choosing between alternative approaches.

Approach

- 1.20 Given the above, there are two basic and inter-related requirements for effectively meeting the aims and objectives of the study:
- The need to set out a conceptual and methodological approach to measuring poverty in Northern Ireland.
 - The need to ensure that the proposed approach reflects the New TSN policy context, that is, rationale, aims, objectives and the implementation of the initiative.
- 1.21 These are inter-related because the specific policy context has strong implications for the choice of an approach and selection of indicators. Hence, the study commences with an overview on New TSN in order to identify objectives for a New TSN poverty indicators framework. That is, what is the role and contribution of a poverty indicators framework in the context of New TSN?
- 1.22 The next step in the approach is to consider a range of options for defining and measuring poverty, that is, how do we identify 'the poor'? What is the current 'best practice' in this regard? What approach is most relevant to New TSN? What data are presently available in Northern Ireland to measure the extent of poverty? What are the information gaps that need to be filled in that regard? The review and assessment of options presented here is based on the results of a scoping study that was prepared at an early stage in the project, specifically to identify and summarise an array of alternative approaches to poverty measurement.
- 1.23 Building on the review of broad approaches to the definition and measurement of poverty, we then review a 'short list' of models or options for a New TSN poverty indicators framework, in order to illustrate a range of approaches to the specification of a poverty indicators framework.

1.24 The models considered are as follows:

- The **thematic indicators approach** proposed by Howarth *et al* and adopted by the UK Government in its *Opportunity for All* publications.
- Two variants of the **income-deprivation approach**, that is, the Rowntree Trust's Poverty and Social Exclusion (PSE) study and the Irish Method, developed over the last decade by researchers at the Economic and Social Research Institute (ESRI) in Dublin.

1.25 These models are then assessed against two criteria:

- The extent to which they meet the requirements for a poverty indicators framework, as set out in Box A above.
- The availability of the requisite data for Northern Ireland.

1.26 The foregoing stages in the approach provide a vehicle for assessing the current availability of data for measuring and profiling poverty in Northern Ireland. The review of existing models for a poverty indicators framework also has the advantage of providing a schematic outline of an approach for the specification of a New TSN poverty indicators framework. This provides the basis for an assessment of the possibility of establishing a baseline of poverty from existing data sources. Thus, the next stage in meeting the terms of reference for this report is to consider the establishment of a baseline of poverty in Northern Ireland, with respect to:

- A profile of people on low incomes.
- Key policy areas such as unemployment and employability, health, education, housing and so on.

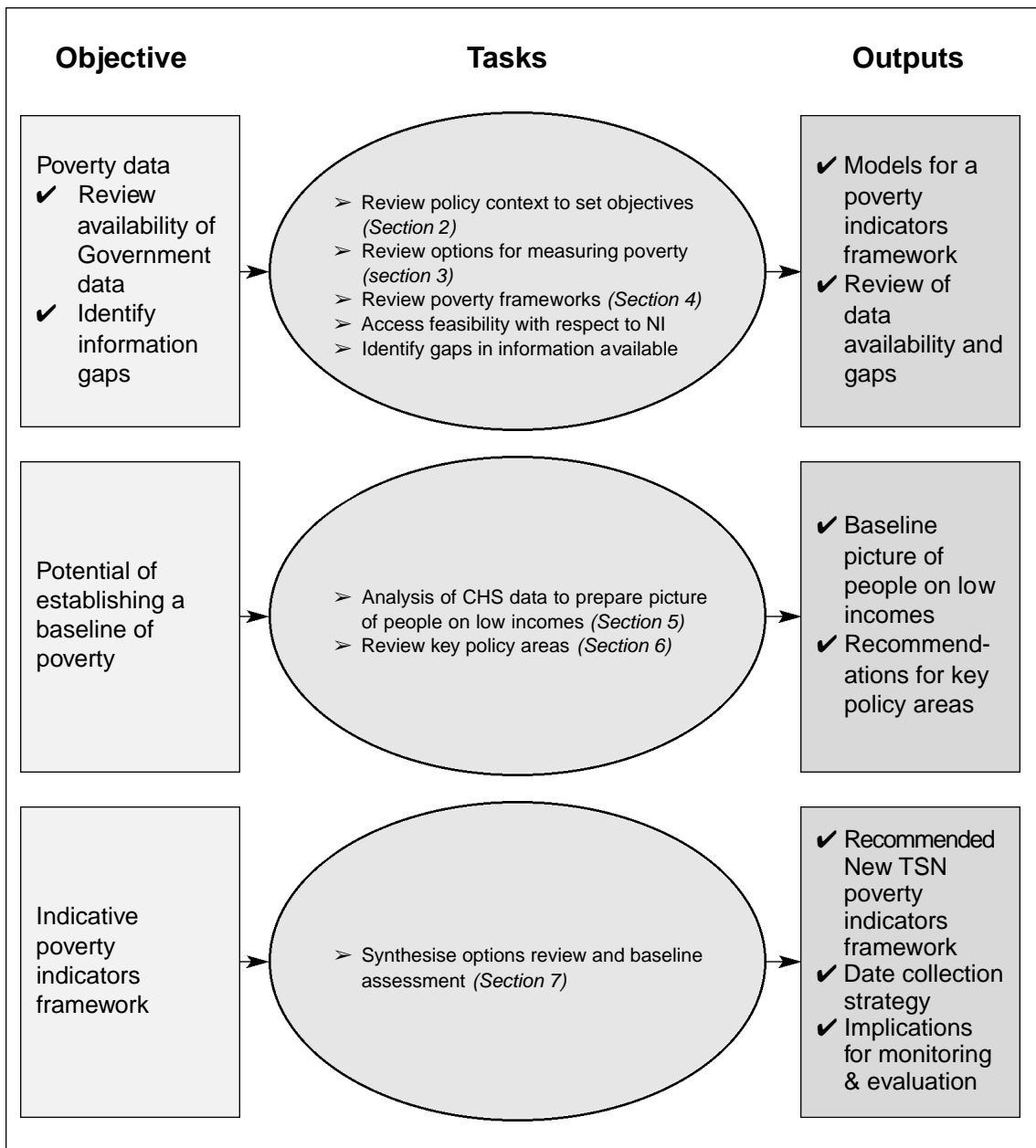
1.27 The final stage in the approach is to synthesise the results of the review of data availability and assessment of a baseline of poverty by specifying the implementation of a poverty indicators framework for New TSN, that is:

- A feasible set of TSN-relevant indicators focused on providing a picture of poverty in Northern Ireland.

- Recommendations for a structure for collecting, processing and producing information on the relevant indicators.

1.28 An important point to note in relation to the above is that the proposed set of indicators is not intended to be definitive. Any conception of poverty and its various dimensions must be informed not just by research and evaluation, but also by informed public debate, analysis and reflection.

Figure 1.1 Approach: Objectives, tasks and outputs



Structure of the Report

- 1.29 The structure of the report follows the outline of the approach described above, as follows (see Figure 1.1).
- 1.30 **Section 2** contains a review of the policy context, with the aim of specifying a set of objectives for a New TSN poverty indicators framework.
- 1.31 **Section 3** reviews options for the measurement of poverty, a fundamental prerequisite for the specification and implementation of a poverty indicators framework. This Section also considers the availability of data in Northern Ireland for this purpose.
- 1.32 **Section 4** considers a number of models for a poverty indicators framework, essentially providing a set of 'best practice' templates for reviewing the current availability of data in Northern Ireland across the full range of requirements for a poverty indicators framework. The review of models also facilitates a schematic outline of a poverty indicators framework.
- 1.33 The next two Sections of the report focus specifically on Northern Ireland, with a view to assessing the establishment of a baseline of poverty within the context of New TSN. Thus:
- **Section 5** considers the possibility of establishing a baseline of people on low incomes.
 - **Section 6** discusses key policy areas such as unemployment and employability, health, education and housing.
- 1.34 Based on a synthesis of all of the above, **Section 7** presents a proposal for the specification and implementation of a New TSN indicators framework.
- 1.35 The conclusions and recommendations from all of the above are presented in the **Executive Summary** accompanying this report.

2 Policy Context

Introduction

- 2.1 The purpose of this Section is to discuss the role and contribution of a poverty indicators framework in the context of New TSN. The Section commences with an overview on the initiative with the specific intention of identifying the need for a New TSN poverty indicators framework. This provides the basis for a set of objectives to be met in specifying and implementing a New TSN poverty indicators framework.

New TSN

Background

- 2.2 Targeting Social Need was first launched as a public expenditure priority in February 1991, primarily as a response to research evidence showing significant differences in the socio-economic profiles of the Catholic and Protestant communities. In March 1998 the White Paper *Partnership for Equality* set out proposals for a New TSN initiative "with its scope redefined and increased effectiveness and transparency". The primary aim remained unchanged, that is:

To tackle disadvantage by directing resources and efforts towards those individuals, groups and areas objectively defined as being in greatest need, irrespective of community background. (Partnership for Equality White Paper, Cm 3890, 1998: 28).

- 2.3 Similar to its predecessor, New TSN anticipates that, over time, the skewing or targeting of resources towards the most disadvantaged groups and areas will "erode" socio-economic differentials between the two main communities. This issue is discussed in detail in a separate report commissioned by OFMDFM (Dignan, 2001).

Scope

- 2.4 A key feature of New TSN was that it would "have a particular emphasis on addressing the problems of unemployment and employability". The rationale for this is that:

There is a close correlation between unemployment and other forms of social disadvantage, such as poor housing, ill health and educational under-performance. Obtaining work is often, indeed, the most effective way to counter the effects of social disadvantage on unemployed people and their families.

2.5 Unemployment and employability are not the sole focus of New TSN, and the White Paper acknowledged that some forms of inequality and need would not adequately be addressed by a policy that focused only on the labour market. Consequently, *Partnership for Equality* identified two other 'legs' of New TSN, that is:

- Targeting of other forms of social need and inequality such as in the spheres of health, education, housing and so on.
- Promoting social inclusion (PSI) through co-ordinated approaches across different Departments to address discrete and specific issues or needs.

2.6 While there is a special emphasis on unemployment and employability, New TSN is intended to have a broad relevance:

All NI Departments will have a contribution to make to the effectiveness of New TSN. No Department can argue that it is irrelevant to its activities, though some programmes can be identified as particularly relevant to the emphasis on employability (Partnership for Equality, 1998: 29).

Implementation

2.7 New TSN is not implemented as a policy or programme in the conventional sense. For example, there is as yet no specific TSN 'fund'. Rather, the initiative is viewed as a 'theme', the implementation of which will affect the targeting of resources and effort by Departments.

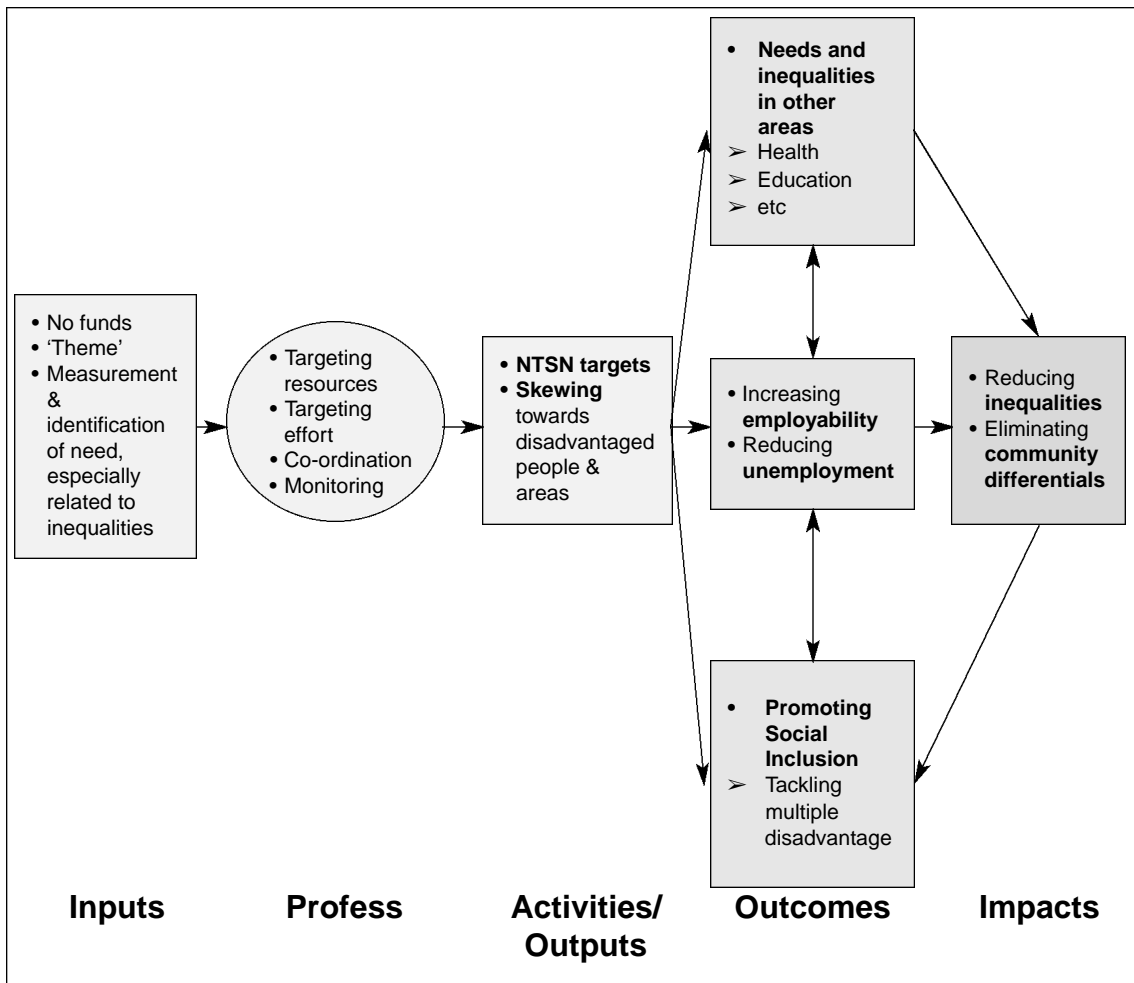
2.8 In operational terms, the first two legs of New TSN are addressed by individual Departments operating within their own spheres, such as education, health, social development, and so on. The expectation is that Departments will implement New TSN by identifying and

measuring greatest need and skewing resources appropriately. Thus, all NI Departments have prepared Action Plans, for a three-year horizon, indicating how they will seek to implement New TSN with the intention of generating positive outcomes that will have the effect of reducing inequalities, including differentials between the two main communities.

2.9 In practice, therefore, the implementation of New TSN is primarily about skewing resources within existing policy and programme areas. As illustrated in Figure 1.1, this emphasises the importance of:

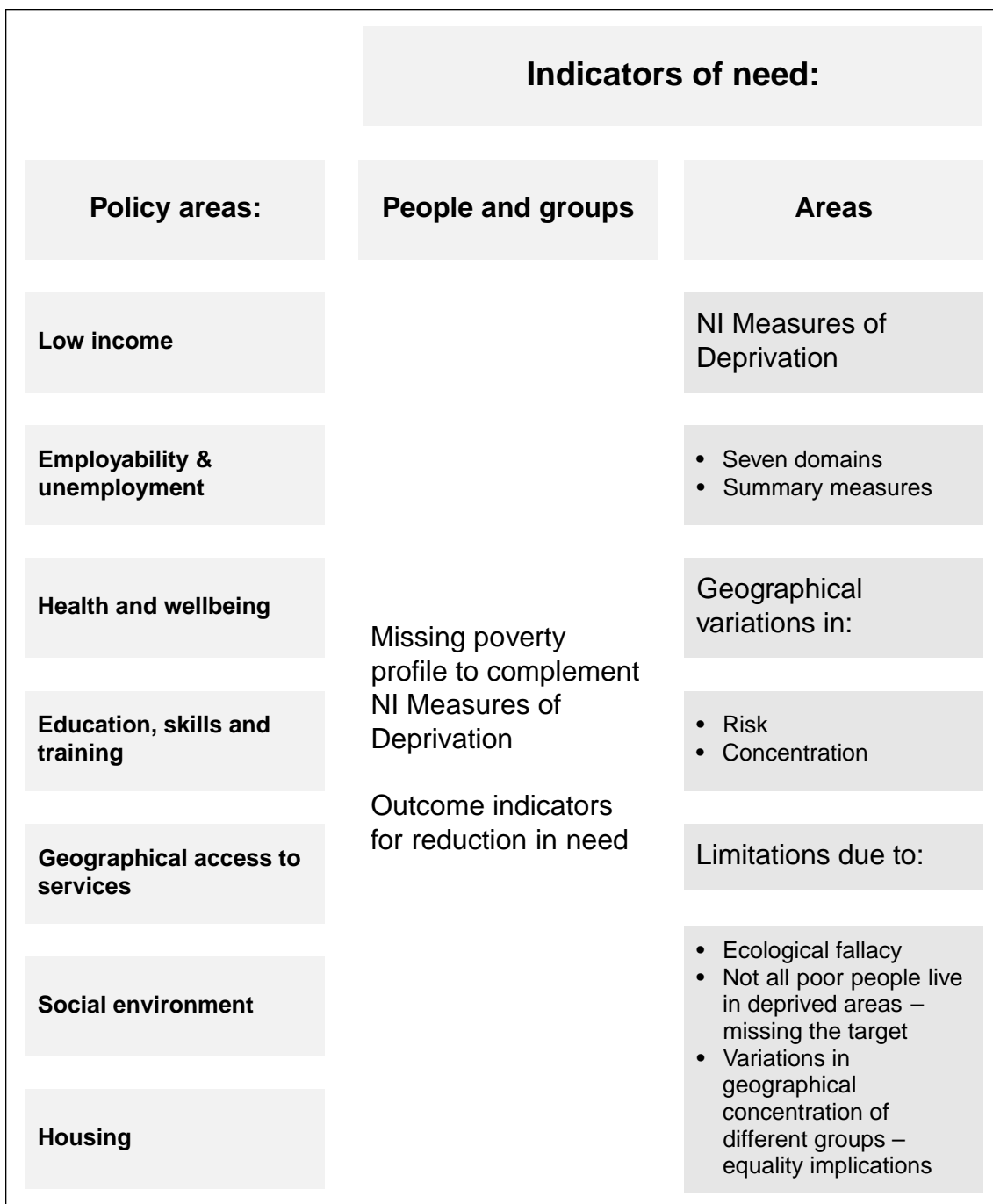
- The identification and measurement of objective need and sources of social disadvantage.
- The processes by which available resources are skewed to better meet objective need, for example, the incorporation of TSN-relevant indicators of need in resource allocation models.

Figure 1.1 New TSN: Schematic model



- 2.10 Understanding the nature and extent of social need and disadvantage is a fundamental building block for the New TSN initiative. That is, in order for New TSN to meet its objective of targeting resources more effectively on social disadvantage, it is imperative to have a good understanding of the dimensions of objective need so that the targeting of resources and effort can be more effectively 'signposted'.
- 2.11 The identification of need and use of such information to inform processes for skewing of resources varies from one Department to another depending on the nature and scope of the Department's objectives. Some Departments, such as DETI, primarily focus on areas. Others, such as DEL, principally focus on specific target groups.
- 2.12 Area-based indicators have featured prominently in the implementation of New TSN. The Robson index of multiple deprivation, based on work carried out in 1994 by a team from Manchester University, gave considerable impetus to the original TSN initiative as it provided a readily usable map of the geography of social disadvantage in Northern Ireland.
- 2.13 The Robson index has recently been replaced as a result of the Northern Ireland Index of Deprivation Review, which reported in July 2001 (Noble *et al*, 2001). The Review resulted in the preparation of separate spatially-based indicators for each of seven 'domains', broadly corresponding to key New TSN policy areas, plus a summary overall measure and a child poverty indicator (Figure 2.2).

Figure 2.2 New TSN indicators of need and key policy areas



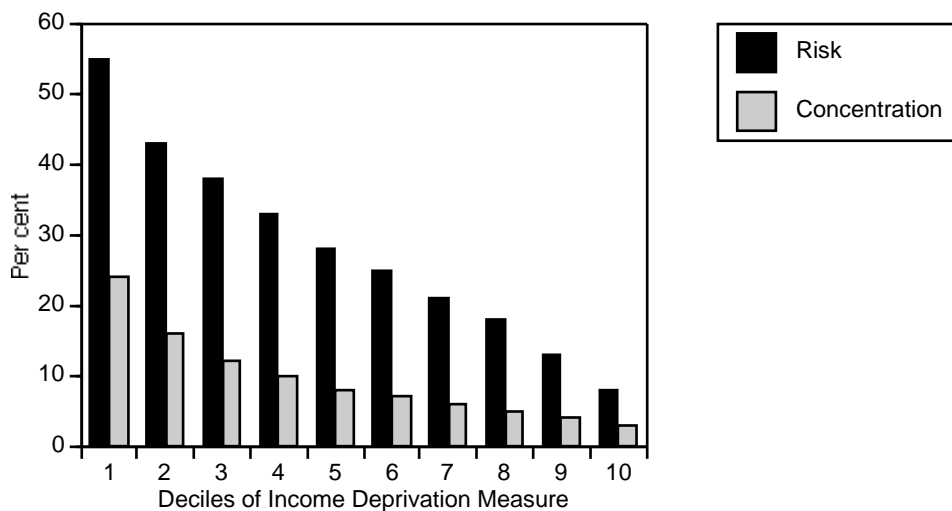
2.14 The NI Measures of Deprivation clearly fill an important need within the overall New TSN initiative. For each domain, the relevant indicator shows:

- Spatial variations in risk. For example, the income deprivation measure gives the proportion of the population within each ward living in families in receipt of means-tested benefits, a proxy indicator for income poverty (Figure 2.3).

- Spatial concentrations of risk. For example, the income deprivation measure shows that 40 per cent of all those living in families in receipt of means-tested benefits are located in the 20 per cent of wards with the highest risk ratios (Figure 2.3).

2.15 New TSN cannot, of course, rely entirely on geographically-based indicators of need and social disadvantage. Nor does it in practice. For example, in the implementation of New Deal, the DEL relies on referrals from the Social Security Agency to identify young unemployed people and long-term unemployed people aged 25 and over. Nonetheless, the initiative presently lacks an overall or 'macro-level' set of indicators of social disadvantage specifically for identifying the needs of groups and individuals. This is an important gap that needs to be filled. While they have many advantages, spatially-based indicators also suffer a number of weaknesses. An indicators framework that is solely, or even primarily, based around geographical indicators is inherently unbalanced.

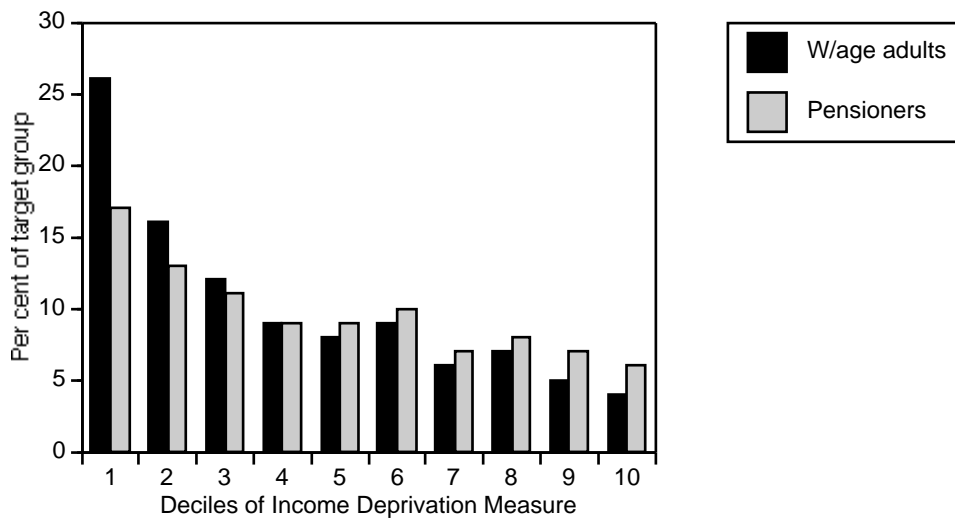
Figure 2.3 Population living in families in receipt of a means-tested benefit by deciles of Noble Measure of Income Deprivation (wards)



Notes: The risk ratio is the proportion of the total population within each decile living in families in receipt of means-tested benefit. The concentration ratio gives, for each decile, the proportion of all individuals living in families in receipt of a means-tested benefit. Source: NISRA.

- 2.16 There are a number of reasons for this, which are summarised in Figure 2.2 (see also Beatty *et al*, 2001). First, not all residents in areas where the risk of poverty is highest are disadvantaged. This is the ecological fallacy problem.
- 2.17 Second, not all poor people live in disadvantaged areas. For example, the 50 per cent of wards with the lowest risk ratios on the income deprivation measure contain almost one in three of those living in families in receipt of means-tested benefits (Figure 2.3).
- 2.18 Third, indicators constructed for small areas such as wards must often rely on administrative data. The ability to use such data is one of the advantages of a spatial index, but it is also a weakness. For example, receipt of a means-tested benefit is a proxy indicator of the incidence of low income. But, depending on the measure of income, in Great Britain between 30 and 40 per cent of individuals in the bottom quintile of the income distribution lived in households **not** in receipt of a benefit in 1998/99 (DSS, 2000b). Close to one in three of those living in households where at least one adult was in receipt of an income-related benefit was in the top three quintiles of the income distribution. That is, administrative data reflect not just low income and poverty risk. They are also influenced by factors such as benefit take-up. Some of these factors, such as take-up, are very germane to an initiative such as New TSN. But, by definition, they are not 'captured' by the relevant administrative indicator.
- 2.19 From a geographical targeting perspective, the reliance on administrative data may not be a problem, if 'missing variables' such as take-up are geographically distributed in direct proportion to the spatial pattern in the administrative indicator. But this cannot be taken for granted. This leads to the fourth problem with geographical indicators - different target groups may vary in their geographical distributions.

Figure 2.4 Individuals in receipt of means-tested benefits, by age-group location according to deciles of the Noble Measure of Income Deprivation



Sources: DSD; NISRA

2.20 This is illustrated in Figure 2.4 with respect to age groups. The main point to note is that working-age adults (and their dependent children) appear to be rather more geographically concentrated in high-risk areas (i.e. the first and second deciles) than do pensioners. Thus, according to DSD data on the location of individuals claiming a means-tested benefit, 40 per cent of working-age adults lived in the 20 per cent of wards with the highest Income Deprivation indicator values. By contrast, pensioners were more evenly spread, with just 30 per cent in the 20 per cent of wards with the highest Income Deprivation indicator values.

2.21 The point is even more strongly made by the striking differences in the geographical distribution of Catholics compared to Protestants (Figure 2.5). The former are considerably more likely to live in the more deprived areas than are Protestants living in families in receipt of a means-tested benefit, who appear to be fairly uniformly distributed across the deciles of Noble. This has clear equality implications in terms of the use of spatial indicators to target resources.

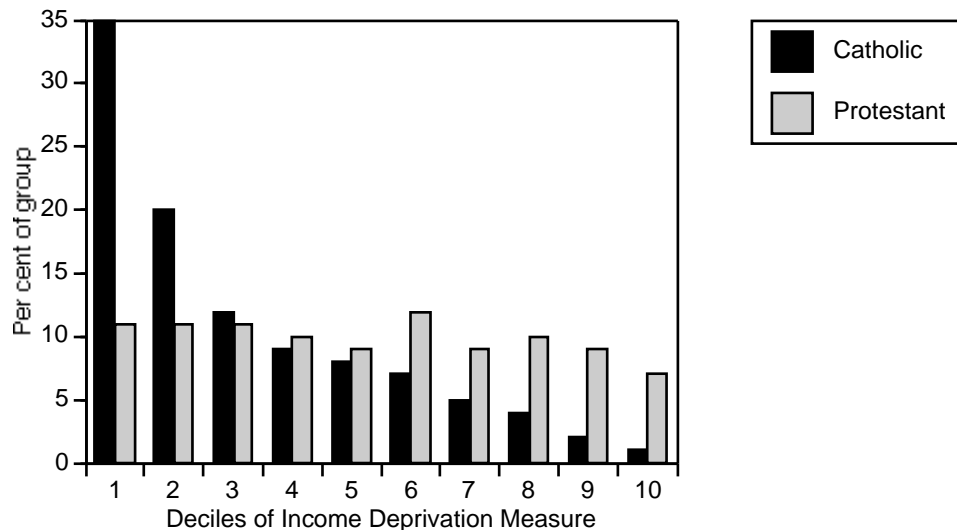
2.22 For all of the above reasons, there is a compelling need for the development of a set of overall indicators of social disadvantage and poverty based on groups and individuals to set alongside the highly

detailed area-based Measures of Deprivation. This study is therefore complementary to the NI Measures of Deprivation, for two reasons:

- It is concerned with poverty and disadvantage as experienced by **individuals and groups of individuals**.
- The Index of Deprivation Review is designed for small area analysis and/or for distinguishing poor from non-poor **areas** at detailed spatial scales such as ward or enumeration district.

Figure 2.5 Individuals living in families in receipt of means-tested benefits

Estimated distribution by religion according to deciles of the Noble Measure of Income Deprivation



Note: Estimates imputed from religious composition of wards at 1991 Census of Population.
Source: NISRA.

2.23 Thus, there remains a need to identify gaps in the profiling of poverty at the individual and group levels, that is, the ‘mapping’ of the socio-economic as opposed to spatial dimensions of poverty and social disadvantage. For example, whereas the Measures of Deprivation say much about spatial concentrations of deprivation, a poverty indicators framework complements this by examining indicators such as the proportion of individuals living in ‘low income’ households or the proportion of children living in workless households, or the proportion of elderly persons living in poor housing. From a policy perspective, this complementarity is important because New TSN is about *directing*

*resources and efforts towards those **individuals, groups and areas** objectively defined as being in greatest need* (Partnership for Equality, 1998. Emphasis added).

Monitoring and evaluation

- 2.24 In a 'conventional' policy or programme, consideration of impacts would typically focus on the expected outcomes from policy or programme-related outputs and activities with a view to assessing how the expected outcomes from such activities may positively affect the underlying indicators of need. But, as noted above, New TSN is not a policy or programme in the conventional sense. The initiative does not have a specific funding line and much of the effectiveness of the initiative depends on how it is implemented, that is, the 'process' column in the New TSN 'route map' (Figure 1.1).
- 2.25 It would be expected that Departments will be in a position to monitor and evaluate their performance against their specific New TSN objectives. This means, of course, that there exists a gap in the monitoring and evaluation of the initiative as a whole, that is, in relation to overall social and economic trends in the position of disadvantaged individuals and groups.
- 2.26 Poverty indicators defined in relation to individuals and groups ought to play a prominent role in the overall evaluation of New TSN. This is because they should provide an indication of the actual extent of objective need amongst the population. In evaluation terms, a poverty indicators framework should identify the rationale and need for the intervention, and hence the type of actual outcomes that can be anticipated.
- 2.27 Thus, in a poverty indicators framework, we are very interested in shifts over time in, for example, the proportion of children in low-income households or in workless households. Clearly, we would like to see these indicators trending downwards, though it is altogether more difficult to attribute policy impacts in relation to such macro-level indicators of need.

2.28 The preparation of a poverty indicators framework should help to meet that need by providing a framework for future data collection (including the construction of a baseline) and analysis:

- To facilitate a **'holistic' assessment** of the progress being made in relation to New TSN;
- To inform the wider debate about **priorities for action**;
- Potentially to act as an input to a more **co-ordinated integration** of New TSN considerations into public expenditure planning.
- To better facilitate **the Promoting Social Inclusion (PSI) initiative**. *Partnership for Equality* states that PSI's "immediate responsibilities will include improving mechanisms for integrating policies and programmes, feeding into public expenditure decisions, and drawing up key indicators of social exclusion against which to monitor progress".

NTSN Poverty Framework: Objectives

General considerations

2.29 Prior to setting out specific objectives for the New TSN initiative, it is useful to consider in general terms the role and contribution of a poverty indicators framework. There are three main reasons for the preparation of a poverty indicators framework:

- Contribute to poverty assessment/poverty alleviation strategy.
- Determining a threshold for benefit entitlements.
- Providing a focus for public debate.

Poverty assessment

2.30 The single most important objective of a poverty indicators framework is to contribute to the preparation of a poverty assessment for developing or modifying national poverty alleviation or reduction strategies. Within that context, a poverty indicators framework should provide analysis of the baseline situation and key trends to assist in:

- Identifying priorities for action and the major needs to be addressed.
- A deeper understanding of the causes and consequences of poverty.
- Setting targets.
- Monitoring progress and evaluating the impact and effectiveness of policy interventions.

2.31 Explicit poverty reduction strategies are, perhaps, more often associated with developing countries (see, for example, UNDP, 2000). But, following the Copenhagen World Summit on Social Development in 1995, 117 countries including the UK committed themselves to drawing up national poverty-alleviation plans for eradicating 'absolute' poverty and reducing 'overall' poverty.

2.32 The Republic of Ireland provides a good example of an explicit anti-poverty strategy in the context of a relatively rich modern economy. Of particular interest in the present context, the Irish National Anti-Poverty Strategy (NAPS) was strongly influenced by extensive research into the nature and extent of poverty in the Republic (see Box B).

Box B

The Irish National Anti-Poverty Strategy (NAPS)

The NAPS document *Sharing in Progress*, published in 1997, set six targets for poverty reduction – a global target and a target for each of five themes: unemployment, educational disadvantage, income adequacy, urban disadvantage and rural poverty. The original Strategy document relied heavily for its understanding of the extent and nature of poverty in Ireland on research carried out at the Economic and Social Research Institute (ESRI) using the 1994 Living in Ireland Study (see Callan *et al*, 1996). This study also played a prominent role in establishing the baseline position and setting poverty reduction targets.

The original NAPS global target was to reduce the percentage of the consistently poor from a 1994 baseline of 9-15 per cent to less than 5-10 per cent by 2007. Progress towards meeting this target was monitored by means of further research by the ESRI, notably Callan *et al*'s 1999 study *Monitoring Poverty Trends*, based on the 1997 round of the Living in Ireland Survey. This study found that, by 1997, the numbers in consistent poverty had fallen to 7-10 per cent of the population. The Government therefore set a new global target that consistent poverty should be reduced to below five per cent by 2007.

The NAPS is currently under review. As part of this review the Combat Poverty Agency is undertaking a study of poverty reduction indicators. It is intended to develop 6-10 indicators in each of 11 thematic areas.

- 2.33 The UK has not articulated quite such explicit poverty reduction targets. Nonetheless, since the present Government came to power in 1997, the issue of poverty has assumed a higher profile and the broad outline of a strategy has evolved in the shape of policies implemented under the theme of ‘work for those who can, security for those who can’t’. These policies include (see Bradshaw, 2001):
- Labour market measures such as the New Deal programmes, the National Minimum Wage, increases in working families’ tax credit, and the Childcare Strategy.
 - Social protection measures such as increased income support.
 - Area-based measures such as education action zones, the Single Regeneration Budget and the New Deal for communities.
 - Preventative measures such as Sure Start and the Children’s Fund.
- 2.34 The UK Government has also identified a set of indicators to measure progress in tackling poverty and social exclusion (discussed further in Section 4 below). These are published annually under by the DSS the title *Opportunity for All*.
- 2.35 It is, of course, recognised that Northern Ireland is a region of the UK, not a national entity in its own right. As such, the overall budgetary allocation is determined centrally and many policy areas of relevance to an anti-poverty strategy are driven by national UK-wide legislation, notably the raft of policy initiatives listed above. This inevitably shapes or limits the scope and reach of a region-specific poverty alleviation strategy.
- 2.36 Nonetheless, Northern Ireland possesses a degree of fiscal autonomy and, as evidenced by the Programme for Government, is in a position to identify priority areas and make choices between competing claims on public resources. Further, there are many policy areas – health, education, and so on – where Northern Ireland possesses considerable responsibility for implementation and delivery, even within nationally-determined statutory contexts.

2.37 Finally, the preceding discussion of the New TSN policy context clearly illustrates that, while key policy initiatives to address poverty and social exclusion are nationally-based, it is also true to say that New TSN has its own regional dynamic and distinctive features that require a Northern Ireland-specific poverty indicators framework. In that respect, it is also noteworthy that Northern Ireland does not feature as a separate entity in the set of poverty assessment indicators published in *Opportunity for All*. Indeed, as discussed in Section 4 below, many of the key indicators that feature in *Opportunity for All* are not separately available for Northern Ireland.

Setting threshold for entitlements

2.38 A key element of any poverty indicator framework must be to determine the extent and depth of poverty. This will inevitably bring into focus existing levels of benefit transfers. In some countries, poverty lines are used as a source of reference income or expenditure level to which such transfers are linked. This is the case with some US programmes, such as eligibility for food stamps.

2.39 Though low income statistics are used in discussions of the incidence of poverty and social exclusion, the UK has not specified an explicit poverty line and does not set entitlements for means-tested benefits on that basis. While the setting of benefit levels requires some judgement as to what level of income is necessary for a minimally acceptable standard of living, it is a moot issue as to whether benefit levels should be set with reference to a specific poverty line. This is because the setting of the poverty line may then be determined as much by the availability of government funds as by the 'true' levels of deprivation and need.

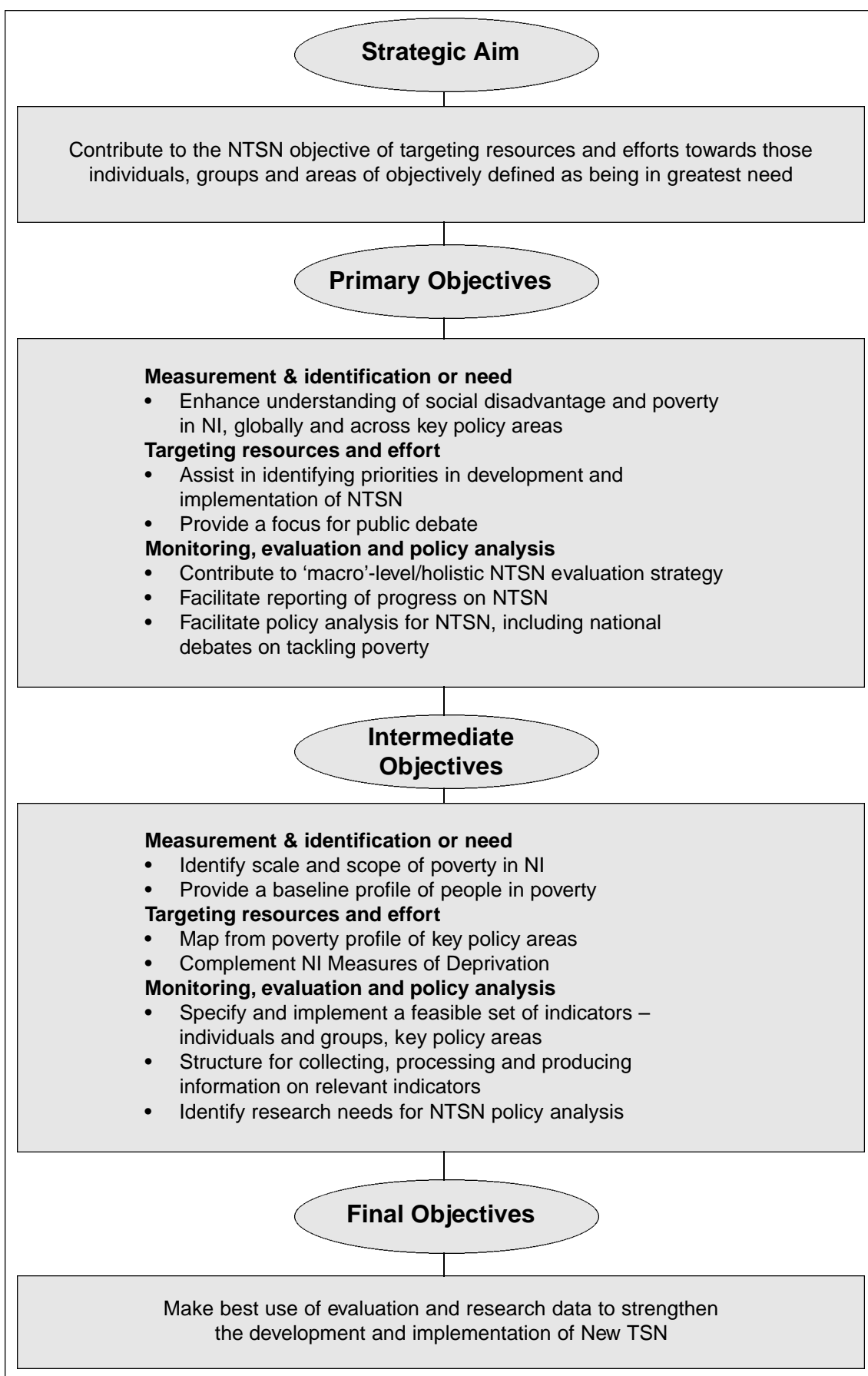
2.40 In the specific context of Northern Ireland, benefit levels are determined on the basis of parity with Great Britain. But the preparation of a poverty indicators framework and associated poverty profile will inevitably throw into relief the efficacy of existing benefit levels for different family types and sizes within the region, thus providing a more informed basis for Northern Ireland to contribute to national debates. Further, a poverty framework can illuminate operational and administrative areas of concern such as benefit take-up, issues that are

of direct concern at regional level. Finally, it should be noted that Northern Ireland also has scope for the design and implementation of innovative pilot programmes (NIEC, 1998; 15).

A focus for public debate

- 2.41 Poverty assessment has strong political ramifications (Lok-Dessalien, 1999). As Fellegi (1997) on behalf of Statistics Canada, rightly points out, definitions of poverty are fundamentally political and there can be no 'objective' neutral definition. This is because poverty is intrinsically a question of social consensus, at a given point in time and in the context of a given country. It is through the political not the research process that democratic societies achieve social consensus in domains that are intrinsically judgmental.
- 2.42 Such discussion needs to be on an informed basis, and a poverty indicators framework can play an important role in that regard. It can also help to maintain poverty as a focus of public attention, perhaps by providing the basis for a 'poverty report' (Lanjouw, 1999; Trinder, 1998).

Figure 2.6 Objectives for a New TSN poverty indicators framework



Objectives

- 2.43 Considering all of the above, it is possible to identify a number of objectives for a New TSN poverty indicators framework. These are summarised in Figure 2.6. The strategic aim is to contribute to the New TSN objective of targeting resources and efforts towards individuals, groups and areas objectively defined as being in greatest need.
- 2.44 The strategic objectives listed in Figure 2.6 are based on the review of New TSN presented above and also reflect the general considerations underpinning the role and contribution of a poverty indicators framework. Thus, objectives are defined under the broad headings of:
- Measurement and identification of need. The critical importance of this as an input to New TSN was identified, as was the absence of an overarching framework of indicators specifically focused on target groups and individuals.
 - Targeting resources and effort. While New TSN is implemented on a Departmental basis, nonetheless there is a need for an overview perspective on key areas of need to which effort and resources should be directed.
 - Monitoring, evaluation and policy analysis. This is a central co-ordinating function within the initiative. It needs to be underpinned by an appropriate indicators framework, which in turn must strongly reflect the poverty dimension.
- 2.45 The intermediate objectives identify the concrete actions that must be taken if the primary objectives are to be achieved. These are again specified under the same headings as the primary objectives. They are derived from the components of a poverty indicators framework as set out in Box A in Section 1. The remainder of this report is essentially devoted to providing a basis for meeting these intermediate objectives.

Concluding remarks

- 2.46 While New TSN is largely delivered 'on the ground' via individual Departmental Action Plans, nonetheless there is a clear need for co-ordination in the key areas of identification of greatest need, targeting

resources and effort and monitoring, evaluation and policy analysis. The specification and implementation of a poverty indicators framework will play an important role in that context.

2.47 As stated in the preamble to the OFMDFM Action Plan, the New TSN unit within OFMDFM has central policy and executive responsibility for the development and implementation of New TSN:

- It promotes and drives forward the initiative.
- Sets overall objectives.
- Advises and, where necessary, challenges Departments.
- Reports progress.

2.48 In addition, OFMDFM's Research Branch:

- Provides professional research and statistical support.
- Is developing a New TSN evaluation strategy.

2.49 The objectives of this study are therefore very relevant to OFMDFM's role in New TSN. In particular, the development of a poverty indicators framework will assist the Department in:

- Identifying and measuring objective need at a 'macro' or cross-Departmental level (see Figure 1.1). This should enhance the transparency and profile of the initiative, by clearly signalling the key poverty indicators of concern to the initiative.
- Setting the New TSN agenda by providing a framework of poverty indicators to assist in the ongoing development and focusing of the New TSN initiative.
- The monitoring and evaluation of the initiative, especially at the overall or 'macro' level.
- Specifying an evaluation framework on which to base reporting of progress.

3 Measuring Poverty

Introduction

- 3.1 A key component of any poverty indicators framework is to provide some estimate of the scale and extent of poverty at a given point in time. This Section focuses on one aspect of this issue, that is, measures of poverty for the purpose of identifying the poor.
- 3.2 There is a vast literature on the definition and measurement of poverty in both the developed and the developing worlds. It is not the intention of this study to provide a comprehensive review of this literature. As noted in Section 1, the preparation of this report has been informed by the earlier preparation of a more detailed scoping study on approaches to the measurement of poverty (see also Nolan and Whelan, 1996; Gordon *et al*, 2000; Boltvinik, 1999). The objective in this Section is to review the relative strengths and weaknesses of the principal approaches to the measurement of poverty for the purposes of a New TSN indicators framework. The definition of poverty employed for this purpose is Townsend's conception of the poor as those "individuals, families and groups in the population [whose] resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities" (Townsend, 1979: 31).
- 3.3 The Section commences with an overview on income-based approaches to poverty measurement, focusing especially on the standard relative income poverty line approach. This method has a number of weaknesses, but also possesses some powerful strengths. It is therefore useful to discuss as a means of fixing ideas for the subsequent review of more recent developments that seek to incorporate deprivation or standard of living indicators into a poverty assessment. Further, some measure of income or resources is a critical underpinning to a poverty indicators framework and a review of the standard approach provides an opportunity to establish some key data requirements and consider their availability for Northern Ireland.

The Income Threshold Approach

- 3.4 The common feature of all income threshold approaches is that they measure poverty purely in terms of the number of people whose current incomes (or expenditure) fall below some pre-defined income poverty line. That is, current income is used as a surrogate or proxy indicator for the individual or household's command over resources. The poverty income threshold serves to define the 'average' level of resources that is required to attain some minimum 'socially acceptable' standard of living.
- 3.5 The method does not tell us if individuals with an income at least equal to the chosen threshold actually satisfy all their basic needs. It simply says that, according to the criterion employed, they at least possess the potential to do so. To that extent, the income threshold approach is essentially an **indirect** means of identifying 'the poor' (Sen, 1979).
- 3.6 The implementation of this approach to identifying the poor hinges on two issues:
- How is the income threshold or poverty line to be determined?
 - How are incomes to be measured?

Relative income poverty lines

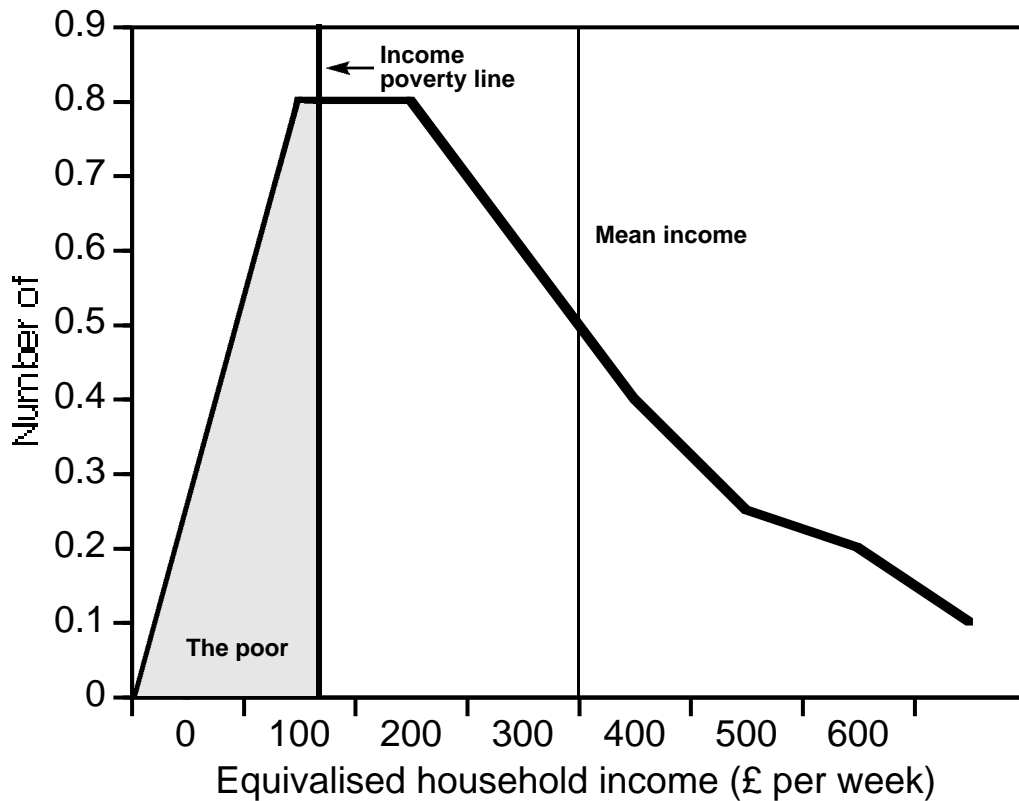
- 3.7 The simplest means of setting the poverty line is to relate income to some proportion of the average. At least in the UK and the rest of Europe, this has also been the most commonly used approach. UK analyses typically use 50 per cent of the mean (e.g. Oppenheim, 1998; McGregor and McKee, 1995). The EU uses 60 per cent of the median (CEC, 2000). This is also the measure of low income cited in the DSS publication *Opportunity for All*.
- 3.8 The approach is illustrated in Figure 3.1. Thus, if data are available on the distribution of income, all that is required is to calculate mean (or median) income and determine how many people have incomes below, say, 50 per cent of the mean. A variant on this approach is to set the threshold at some income equivalent to benefit payments made by the

State, on the basis that the standard of need is implicit in the benefit levels determined by the government (e.g. Borooah *et al*, 1991). This approach has a number of problems and can lead to anomalies⁴ (see Nolan and Whelan, 1996: 16-18; Gordon *et al*, 2000: 74).

3.9 As can be seen, one of the main advantages of this approach is its simplicity. Ostensibly, it does not require direct information on peoples' living conditions and it addresses a key issue – how many people are poor – in a straightforward and transparent fashion. There are a number of drawbacks, which are discussed below. But an income distribution as illustrated in Figure 3.1 is a highly desirable, if not fundamental, component of any assessment of poverty. In the context of this study, it is therefore useful at this point to consider two important issues:

- The measurement of income and attribution to individuals.
- The availability of the requisite data for Northern Ireland.

Figure 3.1 Identifying the poor: Relative income poverty line approach



Measurement of income

- 3.10 The key issue addressed in this Section is the identification of poor people. The individual is therefore the basic unit of analysis in terms of counting the number of people in poverty. Further, the profiling phase of a poverty assessment should be capable of describing the characteristics of specific groups such as children, working-age people, the elderly and also women and men.
- 3.11 For obvious reasons, however, income and expenditure are best measured in respect of households. Primarily, this is because many individuals do not earn income or directly receive benefit transfer payments e.g. children. Instead, they share in the income earned or received by other household members. Their standard of living, and hence their position on the income distribution, depends on the income generated by the household.
- 3.12 Thus, a key step in constructing a relative income poverty line is to adjust measured household incomes for variations in household size and composition. The larger the household, the greater will be the level of income that is required to maintain a given standard of living; a household of five adults will require a higher income than a person living alone if they are to attain the same standard of living.
- 3.13 But a simple per capita adjustment would not be appropriate. This is because there are likely to be 'economies of scale' in the running of a household, for example, by sharing accommodation or utility costs. Thus, each additional member of a household may require a less than proportionate increase in income to maintain a given standard of living. Considered in per capita terms, two can live more cheaply than one. So it is necessary to adjust for household composition as well as household size.
- 3.14 The process of adjusting for household size and composition is known as *equivalisation*. This entails the construction of *equivalence scales*. Typically, these are obtained by taking a particular household type (e.g. a couple) as a reference point and then attempting to estimate a set of relative values for additional household members to reflect the increase in income required to maintain a constant standard of living for each member of the household.

3.15 The process can be illustrated from the procedure used by the Department of Social Security (DSS) in calculating equivalised household income for its Households Below Average Income (HBAI) series (Box C). The main equivalence scales used by the DSS are the McClements scales⁵, which vary according to whether household income is measured before or after housing costs in addition to household size and composition. To give an example, the after housing costs (AHC) equivalence value for a household containing a couple with a four year old child is 1.18. This is obtained by adding 0.55 for the head of household plus 0.45 for the spouse plus 0.18 for the dependent child. What this says is that a couple with a four year old child requires 1.18 times the income of a childless couple if the two family types are to have an equivalent standard of living AHC.

Box C

The DSS Households Below Average Income (HBAI) Series: Key Features

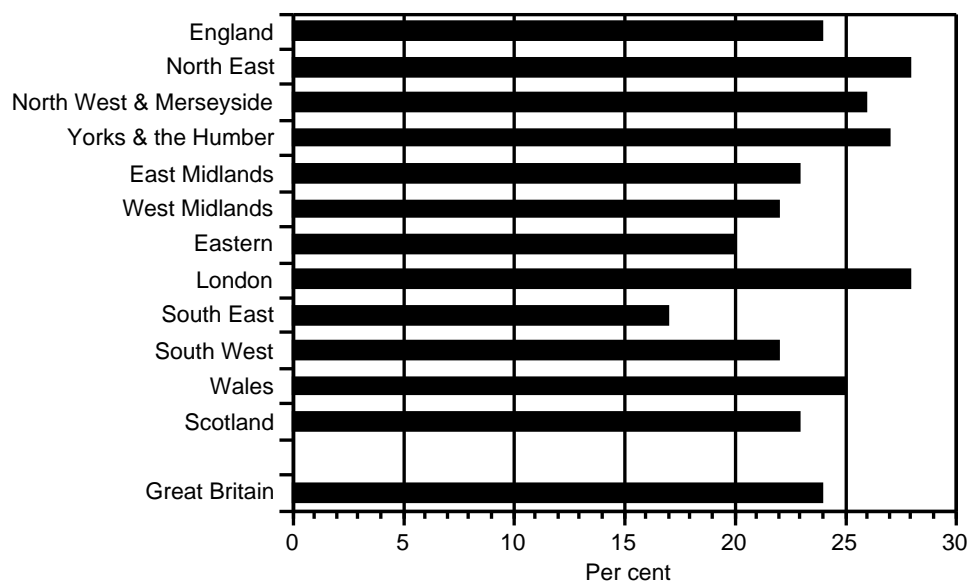
- The HBAI series uses data from the Family Resources Survey to calculate disposable household incomes, that is, income after deduction of income tax, National Insurance contributions, local government taxes and certain other deductions.
- HBAI counts individuals, not households. An individual's income is estimated by assuming that each person in a household shares a common income level, determined by the household's size and composition and its total disposable income. The process for doing this is known as equivalisation (see main text). It assumes, for example, that children have less of an effect on household living standards than adults.
- Incomes are calculated both before and after housing costs like rent or mortgage interest.
- Housing Benefit payments count as part of a household's disposable income before housing costs. These are netted out for the after housing costs measure.
- The focus is on household incomes, not household expenditure. The FRS does not collect information on expenditures, except for housing costs.
- The income figures do not include benefits which individuals receive 'in kind' from ownership of consumer durables or public services such as health and education.
- None of the HBAI series for persons living in households with incomes below various fractions of the mean are regarded as 'official' poverty measures. In the 2000 edition of HBAI the word 'poverty' appears just twice.

Source: DSS, 2000b. Households Below Average Income Series.

- 3.16 In the HBAI AHC series, the income of a couple with one child is divided by 1.18 and the resulting value attributed to each individual (child or adult) in the household. In the case of a childless couple, with a scale value of one, each individual in the household is attributed the equivalent of the household's net income.
- 3.17 Once all household incomes have been adjusted in this fashion it is then possible to construct an income distribution and calculate statistics such as the mean. Thus, in 1998/99, almost one in four people in Great Britain lived in households where net income AHC was below half the mean (Figure 3.2). There was some regional variation around this figure as the proportion below the mean varied from a low of 18 per cent in the South East to a high of 29 per cent in the North East.

Figure 3.2 Individuals below half average income, 1998/99

Equivalised net household income, after housing costs, excluding self-employed



Source: *Households Below Average Income Series, DSS 2000.*

- 3.18 The issue of equivalisation is important not just as a procedure for mapping from households to individuals, but also because it means that the simple relative income poverty line approach must embody explicit assumptions about relative standards of living and variations in need across different household types.

- 3.19 There are, of course, a number of other issues that arise in respect of income measurement for the purpose of deriving a distribution of household income across individuals. In the specific context of HBAI, these include the question of whether income is best measured before or after housing costs, whether it is better to use income or expenditure, the treatment of the self-employed (their income flows are often 'lumpy' and a net measure can be negative) and whether benefits in kind provided by Government or benefit flows from possession of consumer durables should be valued for inclusion in the income measure.
- 3.20 These issues are discussed in detail in Hills (1998). They arise regardless of the conceptual pros and cons of using a relative income poverty line to identify the poor as illustrated in Figure 3.1. Prior to discussing the strengths and weaknesses of this approach we first review the situation in Northern Ireland with respect to the availability of income distribution data. As is obvious from Figure 3.2, Northern Ireland is absent from the HBAI series, which refers only to Great Britain. The question that arises is why this should be the case, particularly since TSN has been a policy priority in Northern Ireland since 1991.

Availability of income distribution data for Northern Ireland

- 3.21 The HBAI series is the main official income distribution series in Great Britain (Box C above). It was introduced in 1985 to replace the Low Income Families data series. The latter series commenced in 1974 and was based on administrative records of numbers claiming Supplementary Benefit (since replaced by Income Support) combined with estimates for those not claiming but whose resources were below the relevant benefit scales. These non-claimant estimates were based on data from the Family Expenditure Survey (FES).
- 3.22 In contrast to its predecessor, the HBAI is based entirely on household survey data. Prior to 1996 the data in editions of HBAI were mainly derived from the FES. Since then, the HBAI series has been based on the Family Resources Survey (FRS). FRS-based HBAI data are available annually for the survey periods 1994/95 to the most recent edition which contained data for 1998/99.

- 3.23 The FRS was launched in October 1992 to meet the information requirements of the DSS. Since the DSS is primarily concerned with the lower 'tail' of the income distribution, surveys such as the FES were considered to have too small sample sizes to meet the Department's detailed requirements. The sample size for the most recent FRS (1998/99) comprised almost 23,000 households containing a little over 54,000 individuals.
- 3.24 By contrast, the UK FES typically has a sample size in the region of 7,000 households. This was considered inadequate for the production of region-specific income distribution statistics, which have only been produced with the advent of the FRS.
- 3.25 Unfortunately, Northern Ireland has not to date participated in the FRS and hence a comparable set of HBAI income distribution statistics does not yet exist for the region. This is a significant deficiency in the availability of data for a poverty assessment profile for Northern Ireland. The situation is, however, set to improve as Northern Ireland will be participating in the FRS from 2002 onwards.
- 3.26 While this is a welcome development, it does mean that NI HBAI results will not be available probably until early to mid-2004⁶. The present gap in the availability of income distribution data for Northern Ireland will therefore extend beyond the current planning horizon for New TSN Action Plans, including the evaluation of the initiative which is scheduled for 2002.
- 3.27 In light of this, we have as part of this study examined the feasibility of providing an interim profile based on existing databases, specifically using either the NI FES or the Continuous Household Survey. The results of this assessment are provided in Section 5 below where we discuss the establishment of a baseline profile of people on low incomes.

Advantages of a relative income line

- 3.28 As an indirect measure of poverty, the relative income line approach has to be seen as primarily representing a measure of the risk of poverty, which is assumed to be highest for those on low incomes.

Because it can be readily applied on a consistent basis across different time periods as well as groups and areas, the approach is well-suited to comparative analysis of poverty risks.

- 3.29 The main benefit of the approach is its simplicity and transparency. Nolan and Whelan (1996) note that the relative income line approach "yields results that can readily be understood and can serve at least as a starting-point for the analysis of poverty, the relative position of low-income groups and the composition of these groups". In Section 4 below we return to the HBAI to illustrate the use of the method for preparing a poverty profile.
- 3.30 To that extent, it is important to appreciate that a key strength of the approach is the underpinning data infrastructure. As shown in Figure 3.1 above, in order to implement the approach it is imperative to have a robust set of data on income distribution across a range of different household types. This is fundamental to a poverty assessment framework and the absence of a consistent data set for income distribution is a major impediment to poverty assessment in Northern Ireland.
- 3.31 Not only does the income distribution data enable a straightforward measure of the incidence of poverty (the so-called 'headcount ratio'), but it also facilitates the application of a range of analytical tools for the calculation of income poverty indices (see Borooah *et al*, 1991, for a good summary discussion).
- 3.32 The simplest of these is the 'poverty gap' measure, or the percentage difference between the average income of those below the poverty line and the poverty income threshold. The poverty gap measure therefore gives the average percentage increase in income required to raise the incomes of the poor up to the poverty threshold. This is a useful, albeit imperfect, poverty indicator. It is flawed because it does not change for any redistribution of income amongst the poor that does not affect the mean income of those below the poverty line⁷. That is, some of the poor could get poorer without affecting the magnitude of the average poverty gap.

3.33 Precisely because it identifies individuals as being at risk of poverty with reference to their position vis-à-vis the distribution of income, the relative income line also explicitly incorporates an equality dimension into the assessment of poverty⁸. If income growth is skewed towards the top end of the distribution, then the number below the 50 per cent threshold is likely to increase. This is important to monitor in a poverty assessment framework. While they are conceptually distinct issues, poverty and inequality are increasingly linked in analyses of economic growth and development (e.g. UNHDP, 2000; NIEC, 1998; Nolan, O'Connell and Whelan, 1998).

Weaknesses of a relative income line

3.34 The weaknesses of a relative income line include:

- Sensitivity to composition of growth.
- Choice of the cut-off point – should this be 40 per cent? 50 per cent? 60 per cent?
- Current income is not necessarily well correlated with current standard of living. A purely income-based approach may not correctly identify 'the poor'.
- Indirect rather than direct measure of poverty.

3.35 These weaknesses are discussed in turn.

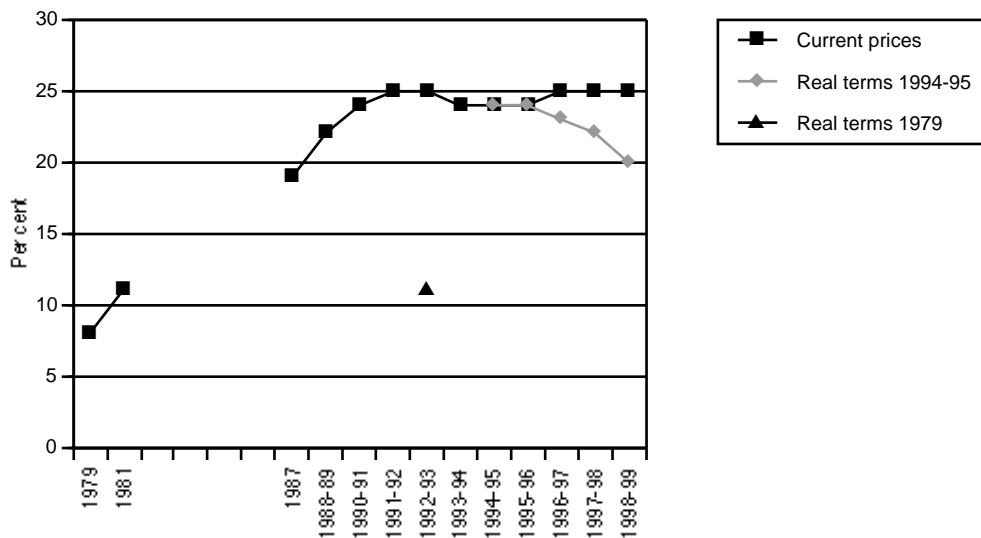
Sensitivity to composition of growth

3.36 While it contributes well to the analysis of inequality trends, the sensitivity of a purely relative income line to the composition of income growth is also perceived as a source of weakness in the context of poverty assessment (Sen, 1983). Suppose income is rising such that low-income groups share fully in the growth so that the mean income of the poor rises by the same proportion as the mean income of the non-poor. The poor are thereby able to achieve an improvement in their standard of living. This improvement, which has implications for poverty assessment, will not be picked up by a relative income poverty line that is tied to some fraction of the contemporary or current prices average income. More importantly, if there is a general decline in incomes, the

resulting potential dis-improvement in people's living standards will not be registered by a relative income line.

3.37 One way of getting around this is to specify a poverty threshold in absolute terms, based on some fixed standard that is adjusted only for price inflation while remaining unaffected by changes in contemporary living standards. For example, in addition to calculating fractions below the mean, the HBAI series also estimates the proportion with incomes below an inflation-adjusted threshold based on the income distribution in some earlier period.

**Figure 3.3 Individuals below 50 per cent of mean income
After housing costs, including self-employed**



Source: *Households Below Average Income Series, DSS 2000.*

3.38 Thus, from 1994/95 to 1998/99 the proportion below 50 per cent of the contemporary mean remained relatively constant at about one in four. But low-income households did experience real income growth, as evidenced by the fact that, by 1998/99, the proportion living in households with an income below 50 per cent of the 1994/95 mean (the fixed standard) fell from 24 per cent to 20 per cent (Figure 3.3).

- 3.39 The problem with this type of absolute standard is, of course, deciding what should be the reference year for the fixed income standard. As illustrated in Figure 3.3, the proportion below a fixed 1979 real terms line was 11 per cent in 1991/92 compared to 25 per cent on the purely relative current prices basis. The problem of the choice of reference year makes the point that even an 'absolute' standard is inherently relative. That is, 'absolute' measures need to be periodically revised to take account of changes in what society considers a 'sufficient' standard of living. But a purely relative line also does this, albeit on a year to year basis.
- 3.40 While an absolute fixed income line is useful in providing insights into the growth of income amongst those at the lower end of the scale, a purely relative income line can often be more useful in assessing 'structural' factors affecting the distribution of income and hence the risk of poverty. For example, the very rapid rise in income inequality in the UK during the 1980s is clearly shown by the sharp increase in the proportion of people with incomes below half the mean, from under 10 per cent in 1979 to one in four by 1991 (Figure 3.3). This in turn reflects a range of influences such as rising unemployment, particularly the number of households without anyone in work (Hills, 1998).

Choice of the cut-off point

- 3.41 One of the major difficulties with the use of the relative income line approach is the choice of the cut-off or threshold level of income below which individuals are said to be 'poor'. The simplest solution to this approach is to adopt a range of thresholds or cut-off points. For example, HBAI publishes percentages below 40 per cent, 50 per cent and 60 per cent of the mean as well as 60 per cent of the median.
- 3.42 There are, however, a number of alternative approaches to the determination of an income threshold. The United States, for example, uses the budget standard approach, which essentially seeks to determine the level of income required to purchase some fixed basket of goods that provide some minimally sufficient standard of living. While it has a number of advantages, the method is difficult to implement (Box D).

- 3.43 Another alternative 'objective' poverty line is due to the food ratio method. This hinges on the observation that the proportion of income spent on 'necessities' tends to fall as income rises. The implementation of the method is based on analysis of family expenditure data. The Canadian Low Income Cut-off (LICO) series is one example of this approach (Box E), though the Canadian authorities adamantly maintain that LICOs should be used only to measure the incidence of low incomes, not poverty (Fellegi, 1997).
- 3.44 In principle, the Canadian version of the food ratio method could be adopted for Northern Ireland, using the Family Expenditure Survey (FES). The main practical difficulty is that the method hinges crucially on identifying incomes for a relatively small set of families, that is, those that spend some specified proportion of their incomes on food. But the NI FES has a sample size of just 600, so the method would likely face considerable difficulty in producing robust estimates. There are a number of other difficulties with the method, including the choice of the cut-off percentage of income spent on food (see Box E).
- 3.45 Both the budget standard and food ratio methods ostensibly provide 'objective' methods of determining income thresholds for poverty assessment. But they necessarily entail either expert opinion or analysis of expenditure patterns by the poor. The former has obvious pitfalls. The latter has been criticised by Townsend on the basis of its circularity, that is, the observed 'needs' are determined to a large extent by the poor.
- 3.46 Thus, some researchers have argued for a 'subjective' approach to the determination of income thresholds. This approach essentially uses population surveys to obtain respondents' estimates of what they regard as a minimum income level on which it is possible to live 'decently'. In principle, this could be applied relatively easily in Northern Ireland, for example, as an additional module on the Omnibus Survey. There are, however, a number of problems with the implementation of this method, including especially the tendency for estimates of the 'minimum income' to rise systematically with the income of the respondent.

Box D

The Budget Standard Approach

- The market basket or budget standard approach to the measurement of poverty is well known and widely used outside the UK. A budget standard is a specific basket of goods and services which, when priced, represents a particular standard of living. Such budgets are probably the oldest methods of exploring living standards, having been pioneered by Seebohm Rowntree in three York-based studies of poverty in the first half of the 20th century and subsequently used by Beveridge in establishing the level of National Assistance scales. Thereafter they fell into disuse in the UK.
 - The task of those who are drawing up a budget standard is to decide which items to include, what quantity of items to include, what quality, what price to give the item, where the item should be purchased, how often and what lifetime should be attributed to it. These normative budgets for what people should be able to have are then priced and individuals' incomes judged to be sufficient or insufficient against them.
 - A major advantage of budget standards is that policy makers responsible for making decisions about the level of welfare benefits can be faced, through budget standards, with the consequence of those decisions. If the modest but adequate budget costs £36 per week more than the Income Support scales, then government can be pressed to specify which budget items they believe claimants should do without. In this sense budget standards are probably the most radical approach to poverty definition and measurement.
 - Probably the major difficulty with the basket of goods approaches is the problem of deciding whose cost and style of living should be used – to determine both the content and the price of the basket for the poorest, the nearly poor etc. This can be based on purely expert opinion or behavioural data. The second problem is that of price changes. Taken together these are probably insurmountable problems both for political and resource reasons.
-

Box E
The Food Ratio Method - Statistics Canada
Low-Income Cut-offs (LICOs)

- The food ratio method is based on the observation (credited to Engel in 1895) that the proportion of income spent on necessities tends to fall as incomes rise.
- One variant of this is Statistics Canada's LICOs. These are an attempt to define the income level at which a family may be in "straitened circumstances" because it has to spend significantly more of its income on the basics (food, shelter and clothing) than does the average family.
- The LICOs are based on analysis of family expenditure data, which are collected periodically by means of a detailed survey of the expenditure patterns of Canadian families. From these data, the average family expenditure on food, shelter and clothing is calculated. This is expressed as a percentage of pre-tax income. Base year LICOs are set where families spend 20 percentage points more of their income than the Canadian average on food, shelter and clothing. The family expenditure survey data are then analysed to determine the income levels at which families spend this percentage on the basics (this was 54.7 per cent in 1992). These income levels, differentiated by size of area of residence and by family size, become the base year low income cut-offs.
- The base year LICOs are periodically revised as new survey data become available. In between base years, the LICOs are updated annually using a consumer price index.
- Using the LICOs, Statistics Canada publishes annual estimates of the number of people with incomes below the relevant LICOs. Equivalencing occurs because the LICOs vary by family size.

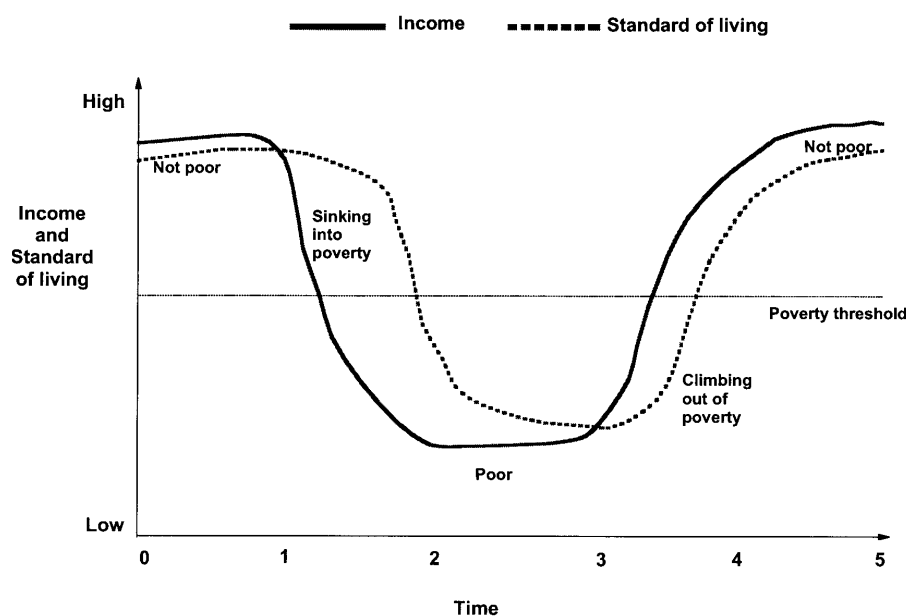
Source: Statistics Canada, 1999. Low Income Cut-offs.

Income as a measure of lack of resources

- 3.47 In the context of an income threshold approach, it is possible to devise alternatives to the simple relative poverty line in order to deal with the problems of sensitivity to the composition of growth. Some poverty researchers have, however, questioned the validity of an income threshold approach to poverty measurement, regardless of how the cut-off point is determined. For example, Ringen (1988) has argued that low income is not a reliable measure of exclusion due to lack of resources (see Nolan and Whelan, 1996, for a discussion of Ringen's critique).

3.48 Partly, this is because low income does not necessarily correspond to low consumption. A household may have accumulated savings or wealth that allows it to maintain a reasonable standard of living even when current income is below what is required to maintain such a standard. Conversely, a household may have an above average level of current income, but with a low standard of living. These situations are illustrated in Figure 3.4, extracted from Gordon *et al* (2001), who refer to households 'sinking into poverty' when income falls but consumption remains high for some period thereafter, or 'climbing out of poverty' when income is rising but consumption lags behind.

Figure 3.4 Relationship of standard of living to income
(from Gordon *et al*, 2001)



3.49 One way of addressing this issue is to focus on consumption expenditure as a more relevant indicator of standard of living. This is the approach used, for example, in Borooah *et al* (1991) and McGregor and McKee (1996)⁹. This strategy presents its own difficulties.

3.50 First, the relationship between consumption and resources is itself a complex field. High consumption may be financed by an unsustainable accumulation of debt, rather than past savings. Conversely, low consumption may reflect tastes rather than lack of resources. Considering these points, Hills (1998) concludes that "appropriate measured income – the 'accretion of the power to consume' – is the main concern"¹⁰.

- 3.51 Our view is that Hills' point is apposite. Indeed, what Figure 3.4 really demonstrates is the need to incorporate a dynamic component into the measurement and analysis of poverty, that is, the persistence of low income. This issue is addressed further in Section 4 below.
- 3.52 Second, neither consumption nor income tells us if an individual is actually experiencing poverty.

Indirect measure of poverty

- 3.53 As noted above, the income threshold method is an indirect measure of poverty. It simply says that those with incomes above the line have the potential to achieve the associated standard of living, be that set by a relative income line or a budget standard or a food ratio method, while those below the line face a higher risk of poverty. Similarly, with a consumption-based measure of resources, individuals may or may not be consuming a 'basket of goods' that is inadequate. They may face special constraints (e.g. health problems are typically ignored in constructing income equivalence scales) or they may have particular tastes.
- 3.54 The indirect nature of income threshold methods, and the difficulties with using consumption as an alternative measure of resources, has led a number of researchers to investigate the use of deprivation indicators in addition to income-based measures.

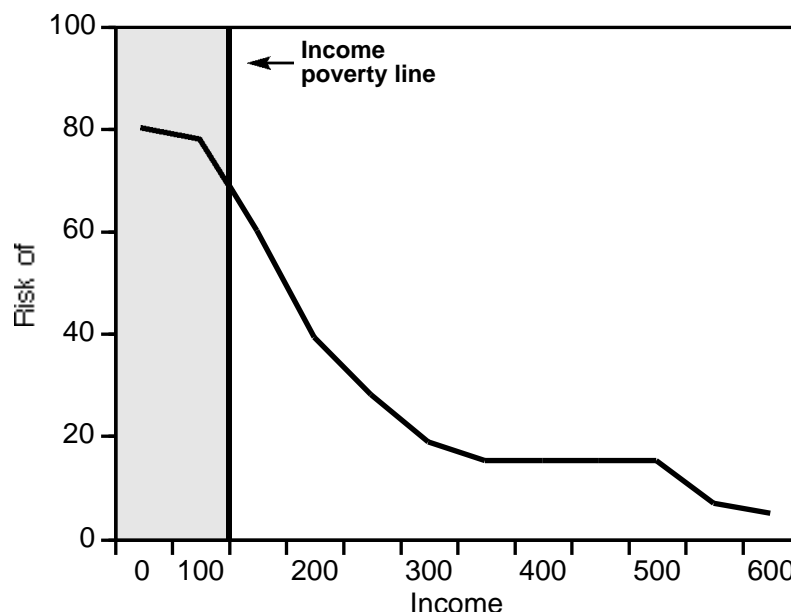
Combined Income-Deprivation Approaches

- 3.55 Figure 3.4 above poses an important question for poverty measurement, that is, at what point in time, or under what set of material circumstances, should a household be considered 'poor'? When either income or consumption is below some threshold level? Or both? This is a difficult question to answer regardless of whether current income or consumption is used as the yardstick for assessing poverty. Stating the problem of identifying poor people in this fashion is another way of saying that we need more information, that is, an additional predictor variable besides income or consumption.

Townsend's income-deprivation approach

- 3.56 A number of researchers have addressed this issue by focusing directly on people's experience of poverty, principally by constructing a set of deprivation indicators that measure enforced lack of socially perceived necessities.
- 3.57 The use of deprivation indicators originated in the work of Townsend, notably his seminal 1979 tome on poverty in the UK. According to Townsend, the real meaning and experience of poverty was that people involuntarily departed significantly from some 'national style of living'. In order to determine such a yardstick in terms of 'material and social deprivation' Townsend drew up a list of 12 indicators measuring different kinds of social activities and material circumstances (e.g. having a refrigerator, an indoor WC, etc). The scores on these indicators were then combined to produce a summary deprivation score, based on the number of items that a person did or did not have/consume.
- 3.58 The summary deprivation scores themselves were not used to predict whether a person was poor. Rather, what Townsend did was to try and link deprivation with poverty by deriving an income threshold below which, he suggested, deprivation scores 'escalated disproportionately'. The rationale for this was that, by relating deprivation scores to resources, he could identify people with resources 'so seriously below those commanded by the average individual that they are, in effect, excluded from ordinary living patterns, customs, and activities'. Thus, any individual with an income below the derived income threshold was then counted as 'poor', regardless of his or her deprivation score. The approach is illustrated conceptually in Figure 3.5 where, below the indicated income poverty line, the risk of deprivation is 'significantly' higher than when income is greater than the derived poverty line.

Figure 3.5 Illustration of Townsend's income-deprivation approach to the poverty income line



- 3.59 Townsend's work is undoubtedly a major contribution to the definition and measurement of poverty. The addition of a deprivation index was innovative in its focus on the actual material living conditions that underlie the experience of poverty. Nonetheless, his work was criticised on two fronts. First, the approach was ultimately a device for selecting an income poverty line, and hence subject to the weaknesses discussed above¹¹.
- 3.60 The second major area of criticism of Townsend focused on the methodology employed for selecting the indicators to be included in constructing the deprivation score and the statistical procedures used for determining the income threshold.
- 3.61 Regarding the selection of indicators, the main points of attack were that the indicators were chosen in too *ad hoc* a manner, did not allow sufficiently for differences in tastes rather than needs/deprivation, and were not statistically validated. There has, however, been considerable progress in addressing these criticisms.

Enforced lack of socially-perceived necessities

- 3.62 The first two criticisms were addressed by Mack and Lansley (1985) in their 'Breadline Britain' survey. They adopted a 'consensual indicators approach', whereby members of the public were asked to identify a set of items (from a pre-determined list) that they regarded as 'essential'. This 'consensual' approach provides a means of reducing arbitrariness in the selection of indicators. The question of tastes rather than needs/deprivation was addressed using the concept of 'enforced lack'. Thus, individuals were held to be deprived of a 'socially necessary' item if they did not possess it because they could not afford it and would like to have it, rather than because they did not want it.
- 3.63 Mack and Lansley defined poverty as reflecting an "enforced lack of socially-perceived necessities". To measure the incidence of poverty, they constructed a deprivation index based on 22 items which a majority of the population perceived to be necessary and which was negatively correlated with income. Any individual suffering enforced lack (did not have and would like to have, but could not afford) of three or more items was considered to be poor.
- 3.64 This is a very different conception of poverty than the relative income line approach. Income is a factor, through the use of 'enforced lack because cannot afford'. But no attempt is made to construct an income poverty line. Regardless of where an individual actually falls on the income distribution, they are counted as 'poor' if they meet the deprivation criterion.

The PSE study

- 3.65 The Mack and Lansley approach has had a major impact on poverty research. Gordon *et al's* Poverty and Social Exclusion (PSE) Survey is the most recent large-scale application of the Mack and Lansley approach. In Gordon *et al's* study, the basic approach to identifying the poor is largely the same as Mack and Lansley, while the statistical modelling and data collection strategy are very sophisticated.
- 3.66 The methodology adopted for the PSE Survey by Gordon *et al* is described in Appendix A. The main point of interest here is the

criterion employed for identifying ‘the poor’. The authors of the PSE study present their work largely in terms of statistically discriminating between poor and non-poor individuals. The statistical results suggested that an enforced lack of two necessities and a low income best discriminated between being ‘poor’ and ‘not poor’. Based on this, the PSE study defined people as ‘poor’ if there were at least two socially defined necessities that they were unable to afford.

3.67 Notwithstanding the use of income in the statistical analysis of the reliability of the deprivation indicators, no income threshold was defined alongside the deprivation criterion for actually classifying people as poor or otherwise. The approach is schematically illustrated in Figure 3.6 where the distribution of deprivation is plotted by income level (the illustration corresponds roughly to the reported incidence of deprivation by income quintile in the PSE study). Thus, in the PSE approach, not all of those in the lower end of the income distribution are defined as poor while poverty measured in terms of deprivation can also exist at the upper end of the income distribution.

Figure 3.6 The PSE’s deprivation-based approach to measuring poverty

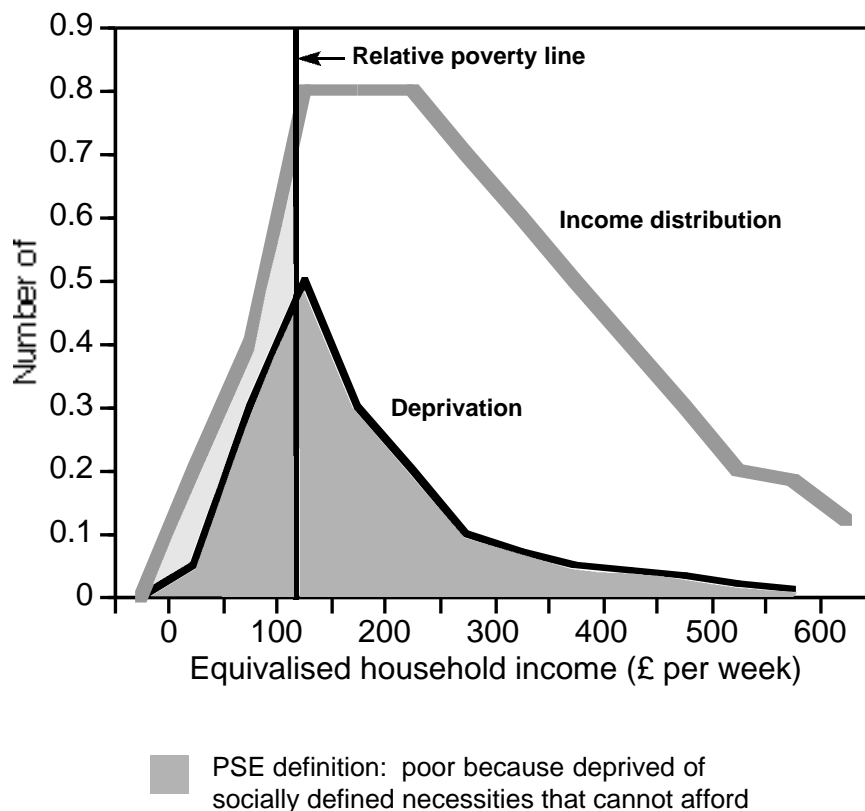
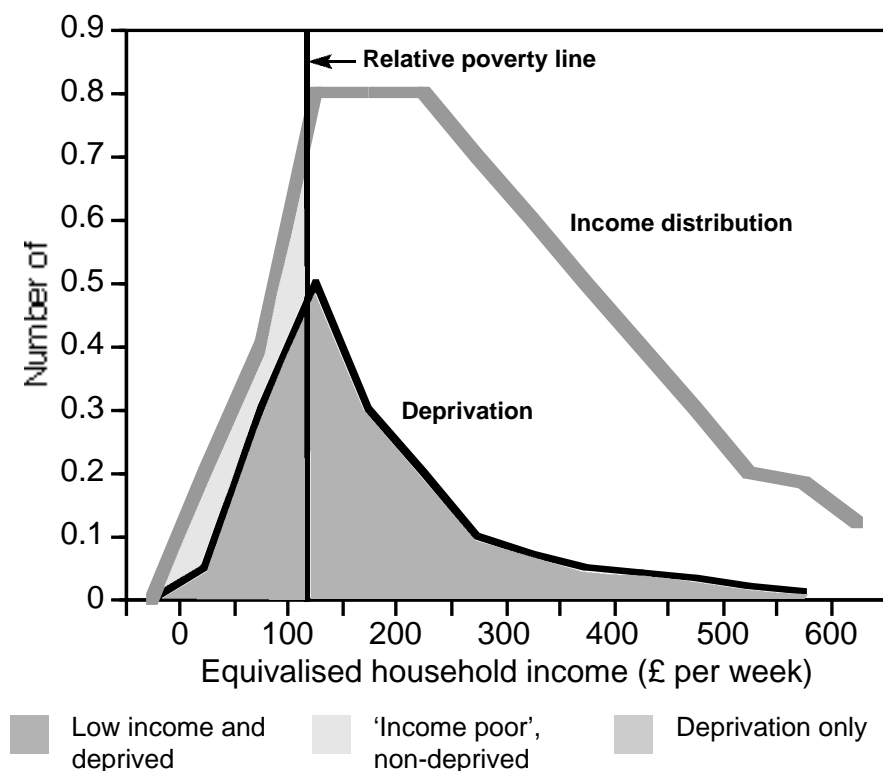


Figure 3.7 ESRI's definition of consistently poor



The ESRI approach

- 3.68 While it differs in a number of respects, including data collection procedures, statistical methods and number of items, the ESRI approach to the identification of people in poverty is similar in many respects to that employed in the PSE study (Nolan and Whelan, 1996; Callan *et al*, 1999; Layte *et al*, 2001. See also Box B). Principally, this is because deprivation is also modelled as a function of enforced lack of socially perceived necessities (see Appendix B, Table B.1). There are, however, some important differences in the implementation of the approach.
- 3.69 The main difference is that the ESRI does not classify all those identified as deprived through enforced lack of socially defined necessities as being in poverty. This is because the ESRI adopts a mixed approach to identifying the poor, marrying the distribution of deprivation with the distribution of income. As illustrated in Figure 3.7, the ESRI distinguishes what it calls the 'consistently poor' from those who are income-poor but non-deprived and those who are deprived but not income-poor. The rationale for the deprivation dimension is that

“current income should not be taken as the sole indicator of **current** living standards and/or command over resources in measuring poverty” (Nolan and Whelan, 1996: 220. Emphasis added).

- 3.70 The ESRI also considered, however, that both income and deprivation are required "if the poverty measure is to be consistent with the widely accepted definition which [following Townsend] relates to exclusion from ordinary living standards owing to lack of resources" (*ibid*: 221).
- 3.71 The second major difference is in the construction of a deprivation index. Based on a factor analysis of enforced lack of the set of socially perceived necessities, the ESRI identified three dimensions, which it termed basic deprivation (mostly diet and clothing items), secondary deprivation (mostly related to possession of household durables) and a housing deprivation dimension (see Table Appendix B, B.2).
- 3.72 Based on comparative profiling of individuals in each of the three dimensions, the ESRI considered that the **sub-set** of items related to **basic deprivation** was most likely to reflect poverty as opposed to some other influence on deprivation. For example, the housing deprivation indicators were found to be most prevalent amongst rural dwellers experiencing some housing problems but otherwise not displaying characteristics of poverty such as low income or basic deprivation. The implication is that a full set of items in a Mack and Lansley type analysis may be capturing other factors besides poverty.
- 3.73 By contrast, the PSE approach was to derive a deprivation index from the full list of socially perceived necessities, after excluding some of these subsequent to a battery of statistical reliability tests (see Appendix A, Table A.1). The statistical results provide re-assurance that the PSE index is measuring ‘deprivation’ in a general sense. But the ESRI factor analysis results (Appendix B, Table B.2) would suggest that this is not necessarily the same as measuring deprivation due to poverty.

Assessment

- 3.74 The basic conceptual difference between the PSE and the ESRI approaches to identifying people in poverty is illustrated by comparing

Figures 3.8 and 3.9. In the former approach, the actual classification of individuals as poor or otherwise is determined solely by reference to the deprivation or standard of living dimension. Income enters indirectly, as a self-reported constraint on the ability to obtain some sub-set of socially perceived necessities¹². The implication is that those who are not deprived possess the resources to maintain at least an 'ordinary standard of living'.

3.75 In the ESRI approach, both the income and deprivation dimensions are deployed to classify people as being in poverty. Thus, the 'consistently poor' are comprised of the intersection or overlap between the income and deprivation dimensions (Figure 3.9). This gives a considerably lower poverty rate than would be obtained from sole reliance on deprivation or a relative income poverty line. However, the ESRI argues from its experience with monitoring poverty for the Irish NAPs that:

The combined income and deprivation approach has provided a more satisfactory approach to identifying those at risk of exclusion due to lack of resources in Ireland and tracking the evolution of poverty in the highly unusual circumstances of the 1990s than poverty measures relying on income alone. (Layte et al, 2001).

Figure 3.8 Income and deprivation in the PSE approach

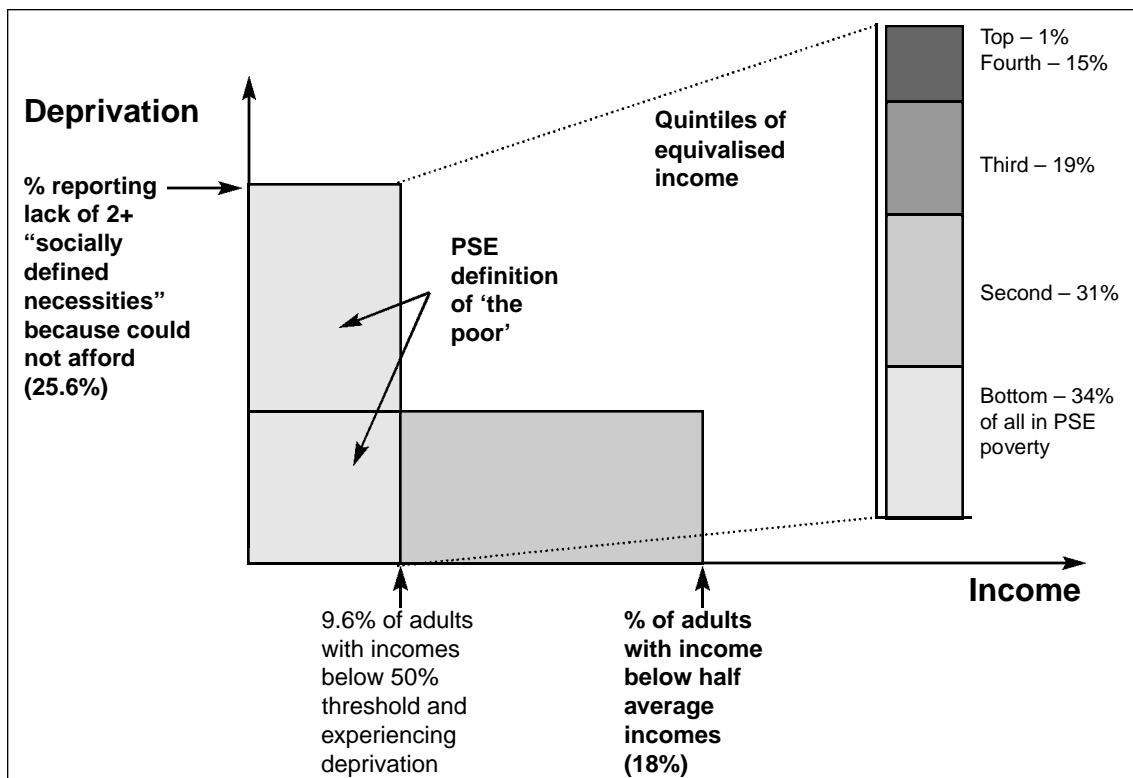
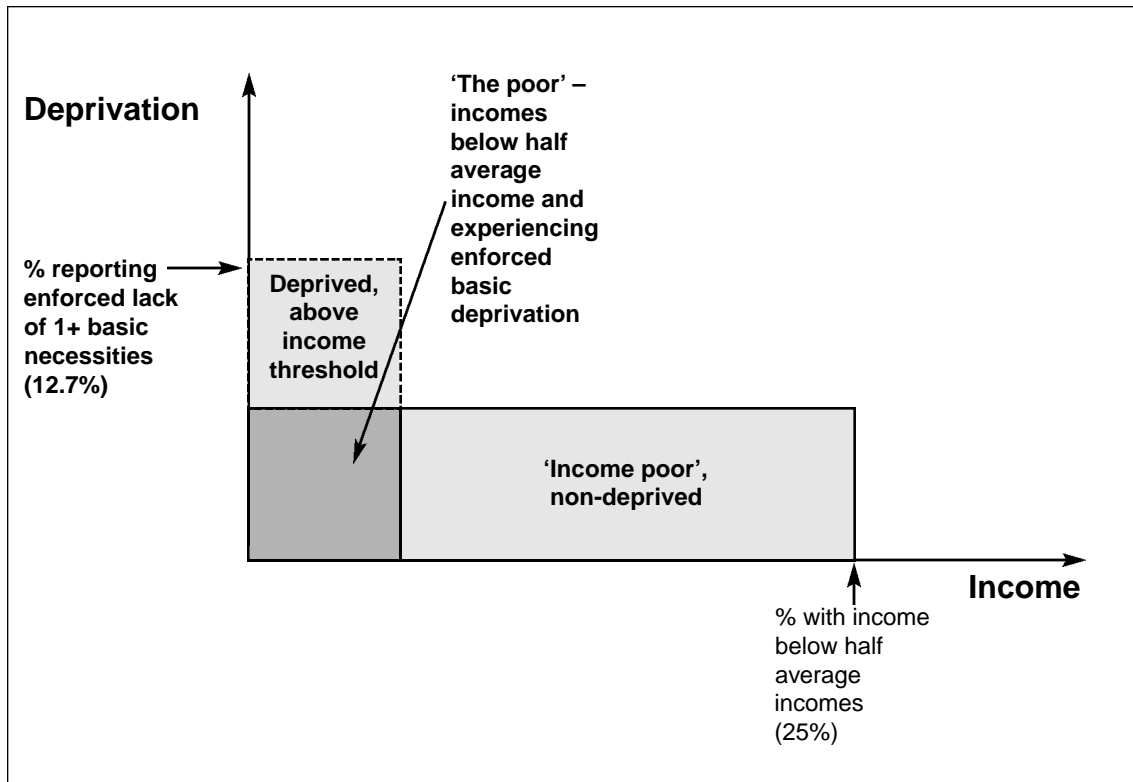


Figure 3.9 Income and deprivation in the ESRI approach



3.76 Though they produce quite large differences in the estimates of the incidence of poverty, it is not possible to say which of the two views on the role of deprivation in the identification of poverty is 'correct'. Any poverty measure must be considered in terms of reliability and construct validity, and certainly both the PSE and ESRI approaches paid considerable attention to these issues, employing sophisticated statistical analyses.

3.77 The ESRI contention that the poverty dimension underlying generalised deprivation is best captured by a sub-set of items reflecting 'basic deprivation' appeals strongly to an unsatisfied basic needs approach to poverty. With its emphasis on deprivation in respect of the full set of socially perceived necessities, the PSE approach takes perhaps a broader perspective on the experience of poverty. Ultimately, however, both the PSE and ESRI models correspond to a relative definition of poverty and the choice of an approach must ultimately depend on the specific policy context.

3.78 Neither approach is perfect. Poor individuals in the PSE approach are found right across the income spectrum (Figure 3.8). A significant

proportion of individuals in the fourth quintile of the income distribution are described as 'poor' while only a little over half of those in the bottom quintile fall into the poor category. Notwithstanding the statistical reliability analysis, the very wide spread across the income distribution may reflect some influence from tastes rather than needs/deprivation or poverty *per se*. More seriously, it is difficult to accept that individuals in the upper income quintiles can be considered to be in 'poverty'¹³.

- 3.79 The main problem with the ESRI approach is the choice of a cut-off point for the income dimension of the 'consistently poor'. This problem is mitigated in practice by the use of a range of cut-off points. Also, the measurement framework allows issues to be addressed from either an income perspective or a deprivation perspective or both together (in principle, there is nothing to prevent such an analysis also with the PSE approach). While such flexibility is desirable in a policy analysis context, nonetheless the specification of the income dimension is open to some, though not all, of the criticisms levelled at the relative income poverty line approach.

Conclusions

- 3.80 This Section has considered a number of alternative methods for identifying poverty; that is, providing an answer to the question 'how many people are poor?'
- 3.81 The simplest approach is to identify the poor as those whose incomes fall below some fraction of the mean. The implementation of this approach requires information on the distribution of household income and the use of a process called equivalisation that allows a household income distribution to be analysed in terms of individuals. The resulting income distribution is a powerful aid to poverty analysis.
- 3.82 The method can be applied in Great Britain using the Households Below Average Income Series. Unfortunately, the survey on which HBAI is based – the Family Resources Survey – is not currently undertaken in Northern Ireland. Thus, there presently exists a significant gap in the availability of information for poverty measurement in Northern Ireland. This gap will be rectified over time, as the FRS will be introduced in spring 2002. Income distribution results will not, however, be available

until early to mid-2004. Thus, some interim strategy is required in Northern Ireland.

- 3.83 While it has considerable strengths, particularly in identifying the risk of poverty, the relative income line approach also suffers a number of weaknesses. Principal among these is that it is an indirect measure of poverty; it does not tell us if an individual is actually experiencing poverty.
- 3.84 This weakness can be addressed by assessing whether people suffer enforced lack of socially perceived necessities. Two variants of this approach were discussed, that is, the PSE and ESRI approaches. These approaches differ in two respects. First, the ESRI considers a sub-set of socially perceived necessities to reflect deprivation due to poverty, while the PSE considers enforced lack in respect of two or more items from all items found to be regarded, from survey evidence, as socially perceived necessities.
- 3.85 Second, the ESRI identifies what it calls the 'consistently poor' by applying both an income threshold and a deprivation or standard of living threshold. By contrast, the PSE approach applies only a deprivation threshold to identifying the poor.
- 3.86 These differences mean that the estimated incidence of poverty will tend to be higher in the PSE approach than with the ESRI method. The use of a deprivation or standard of living threshold only also means that poverty in the PSE approach is found across the income spectrum. This means, for example, that a person in the fourth or fifth quintiles of the income distribution can be classified as poor by the PSE approach, though not by the ESRI. The ESRI perspective is the more apposite, in our view.
- 3.87 In conclusion, two final points can be made. First, both the PSE and the ESRI approaches illustrate the dangers of relying solely on an income-based approach for the measurement of poverty. This provides a strong rationale for the inclusion of a deprivation or standard of living dimension in poverty measurement for New TSN.

- 3.88 Second, the implementation of either of these approaches would require original survey data collection. However, there are survey vehicles available in Northern Ireland that could facilitate the data collection along the lines of the PSE approach (see Appendix A), notably the Continuous Household Survey.
- 3.89 Further, because they are both grounded in the enforced lack approach to poverty measurement, the data requirements overlap sufficiently that both approaches could be implemented empirically from an appropriately constructed survey database. This issue is addressed further in Section 7 where we specify a data collection strategy for an indicators framework in Northern Ireland.

4 Poverty Frameworks: Models and NI Data Availability

Introduction

4.1 This Section reviews a 'shortlist' of models or options for a New TSN poverty indicators framework. The objectives of the review are as follows:

- To illustrate a range of approaches to the specification of a poverty indicators framework.
- Consider the current availability of NI government data to provide an overview of poverty in Northern Ireland by assessing the available data sources against the requirements of various models for a poverty indicators framework.

4.2 The models considered in this Section are as follows:

- **Household Below Average Income (HBAI)**. This DSS publication (see Box C above) is not explicitly cast as a poverty indicators framework. However, it is a key data resource for assessments of poverty in Great Britain based on the relative income line approach.
- The **thematic indicators approach** proposed by Howarth *et al* (1998) and adopted by the UK Government in its *Opportunity for All* publications. This approach relies heavily on HBAI, but uses a range of other unrelated data sources to paint a picture of poverty in Great Britain.
- Two variants of the **income-deprivation approach**, that is, the Poverty and Social Exclusion (PSE) study and the ESRI approach.

4.3 These models were chosen because:

- They exemplify the application of one or other of the approaches to the **identification and measurement** of poverty discussed in the preceding Section of this report.

- They contain information on one or more of the various other components of a poverty indicators framework, including as per Box A above, a **profile** of the poor, assessment of the **scale and scope** of poverty and/or analysis of the **multiple dimensions** of poverty.
- 4.4 Each of these models is briefly described in turn with particular reference to whether and how they meet the requirements of a poverty indicators framework. The review of each model also considers the current or possible future availability of NI data for application of the model to the assessment of poverty in Northern Ireland.
- 4.5 The Section concludes with an assessment of the models against two criteria:
- The extent to which they meet the requirements for a poverty indicators framework, as set out in Box A above.
 - The availability of the requisite data for Northern Ireland.

Households Below Average Income

- 4.6 The DSS Households Below Average Income (HBAI) series provides estimates of patterns of personal disposable income in Great Britain (see also discussion in Section 3 above). As the title of the series suggests, HBAI primarily focuses on people at the lower end of the income scale. It is not presented by the DSS as a vehicle for the assessment of poverty. Nor is poverty explicitly defined in HBAI. Nonetheless, since it attempts to measure people's potential living standards as determined by disposable income, it has often been used to analyse poverty using a relative income line approach (e.g. Bradshaw, 2000; Oppenheim and Harker, 1996).
- 4.7 A second major point of interest in the present context is that Northern Ireland results will be available from 2004 onwards, for the 2002/03 financial year. It is therefore useful to take stock of the potential contribution from the HBAI to the preparation of a NI poverty indicators framework.

- 4.8 The main features of HBAI with reference to a poverty indicators framework are summarised in Box F. HBAI is underpinned by two main data sources. The Family Resources Survey (FRS) is a large scale household survey undertaken annually by the DSS. The data collected in FRS reflect the DSS concern with modelling benefit entitlement, focusing on income, including receipt of Social Security benefits, housing costs and circumstances of household members such as whether someone has child care costs. FRS does not collect information on current expenditure. However, reflecting the concern with resources, information is collected on possession of or access to a wide range of consumer durables, reported by income quintile in HBAI.
- 4.9 The FRS provides the basis for the estimation of the distribution of equivalised¹⁴ incomes from which it is possible to determine the number of individuals with incomes below various fractions of the mean. It is an annual cross-sectional survey, that is, a different set of households is interviewed every year. Thus, FRS can also provide information on trends in the distribution of income.
- 4.10 Because it is cross-sectional, FRS cannot provide information on income mobility or the persistence of low incomes. Such information is, however, available from the British Household Panel Study (BHPS). This is a longitudinal panel data study whereby the same individuals are periodically re-interviewed. Some of the indicators available from BHPS and which are reported in HBAI are listed in Box F (see also, Walker and Park, 1998; Hills, 1998). This survey also does not presently extend to Northern Ireland, but it is intended to launch a NI version of the BHPS.

Box F

Households Below Average Income

Identification and measurement

- Number
 - Poverty not explicitly defined.
 - Focus is on individuals living in low-income households.
 - Reports on income distribution – deciles & quintiles
 - Relative and absolute income lines - per cent below thresholds (40%, 50%, 60%) of:
 - Contemporary mean income
 - 1994/95 mean income
 - Relative income lines back to 1979
- Trends

Profile

- Characteristics
 - Main profiles: Family type, economic status, presented for all individuals and separately for children, working-age adults, pensioners
 - Range of other characteristics such as gender, age, tenure, labour market status, etc.
 - By socio-economic and demographic characteristics
 - By socio-economic and demographic characteristics
 - Counties and regions, Great Britain
 - Income distribution (quintiles)
 - Relative income lines 1998/99
- Risk
- Concentration
- Location

Scale and scope

- Depth
 - Not analysed, but indicators such as poverty gap are feasible. Under-utilised aspect of HBAI.
 - Number of years spent in bottom 30% of income distribution:
 - Each of four years
 - Three of four years plus one year in bottom 40%
- Persistence/dynamics

Multiple dimensions

- Correlates
 - Purely descriptive presentation of profiles
 - Social security/social policy
 - Key data source for *Opportunity for All*
 - Cross-sectional counts, trends and profiles - Family Resources Survey. Annual survey, large sample size, randomly selected cross-sections of the population.
 - Persistence/dynamics - British Household Panel Survey. Longitudinal panel data set. Tracks same households/individuals over a period of years. Since 1991. Unrelated to FRS.
 - Annual
- Key policy areas

Data sources

Frequency

NI availability

- FRS – scheduled to commence Spring 2002.
- BHPS – first wave scheduled to commence 2002. But income questions may not be asked in first couple of waves, to reduce risk of panel attrition.

- 4.11 From the perspective of establishing a poverty indicators framework, the strongest feature of HBAI is the extensive profiling of people living in low income households. Such individuals are profiled using two main variables, family type and economic status of the benefit unit¹⁵ in which they reside (see Appendix C). Additional analyses are possible based on e.g. age, gender, tenure, socio-economic group, etc.
- 4.12 Three main indicators are typically profiled in HBAI for a range of income thresholds:
- The **number** of people in low income households.
 - The **risk** of living in a low income household, that is, the number below some given income threshold **within** each socio-economic or demographic group expressed as a percentage of all individuals in that group.
 - The **concentration** of low-income, or the number in a socio-economic or demographic group with incomes below some threshold expressed as a percentage of all individuals with incomes below the given income threshold.
- 4.13 These indicators are illustrated in Table 4.1 for individuals living in households below half average income classified by family type and economic status of the benefit unit in which the individual resides. The indicators are also separately presented for men, women and children. For example, considering the distribution of risk ratios by economic status, HBAI vividly illustrates the contrast between individuals living in 'work-rich' households compared to those where no-one is in work. HBAI also shows a higher risk for children and substantial variations by family type. The risk ratio is especially high for single adults with children.
- 4.14 The concentration ratios are also of interest. For example, Table 4.1 shows that, while couples with children face an average risk ratio, nonetheless they comprise one third of those living in low-income households, a higher percentage than any other family type.
- 4.15 Clearly, this type of profiling is of considerable interest and relevance from a New TSN perspective. For that reason, Section 5 below

considers the feasibility of preparing such a profile for Northern Ireland as an interim measure pending the availability of HBAI results.

4.16 From the perspective of a New TSN poverty indicators framework, the main weaknesses of HBAI are as follows:

- The implicit definition of poverty reflects an income threshold approach, the weaknesses of which have been discussed in Section 3 above. Specifically, deprivation does not feature in the identification or measurement of poverty.

Table 4.1 Individuals living in households below half average income, after housing costs (including self-employed): 1998/99

	Below 50 per cent of average income			All
	Number <i>million</i>	Risk ratio ¹ <i>Per cent</i>	Concentration ratio ² <i>Per cent</i>	individuals ³ <i>Per cent</i>
All individuals	14.3	25	100	100
Men, women & children				
All children	4.5	35	31	23
All women	5.4	25	37	38
All men	4.5	20	31	40
All adults	9.8	22	69	77
Family type (benefit unit)				
Pensioner couple	1.4	25	9	10
Single pensioner	1.6	37	11	7
Couple with children	4.9	24	34	36
Couple without children	1.5	12	10	22
Single with children	2.9	62	20	8
Single without children	2.2	22	15	17
Economic status (benefit unit)				
Self employed	1.3	24	9	9
Single/couple all in full time work	0.5	4	4	23
Couple, one in full time work, one in part time work	0.6	7	4	15
Couple, one in full time work, one not working	1.5	22	11	12
One or more in part time work	1.6	35	11	8
Head or spouse aged 60 or over	3.3	34	23	17
Head or spouse unemployed	1.7	78	12	4
Other	3.9	64	27	11

Notes:

¹ Risk ratio – Number in group below the threshold as a percentage of the total number in the group.

² Concentration ratio – Number in group below the threshold as a percentage of all individuals below the threshold.

³ All individuals in the group as a percentage of all individuals.

Source: *Households Below Average Income Series, DSS 2000.*

- Though complementary, FRS and BHPS are separate unrelated surveys. Hence, the analysis of income mobility or persistence of low incomes is not fully integrated with the main HBAI tables.
- Most importantly, HBAI is purely descriptive. While it is recognised that HBAI is intentionally so, nonetheless it does not provide analysis of the multiple dimensions of poverty, either in terms of the correlates of poverty or the relationship to key policy areas.

Multiple Thematic Indicators

- 4.17 Clearly, while HBAI provides much of the underpinning 'data infrastructure', it cannot be considered to represent a fully specified poverty indicators framework in its own right. The multiple thematic indicators approach developed by Howarth *et al* represents one means of grafting key policy areas or policy-relevant themes onto the low income perspective provided by HBAI (Howarth *et al*, 1998, 1999; Rahman *et al*, 2000).
- 4.18 The thematic indicators approach involves (a) expert selection of domains or fields of everyday life as significant for poverty purposes and (b) the selection of markers and thresholds of poverty within those fields. The approach is illustrated schematically in Figure 4.1 as a cross-classification of selected themes by groups of indicators, with selected examples of indicators drawn from Rahman *et al* (2000). The indicators are grouped on three dimensions, poverty and low income, stage in the family life cycle, and 'communities'.

Figure 4.1 Howarth *et al*'s thematic indicators approach

	People & Groups					
Themes (key policy areas):	All individuals	Children	Young Adults	Adults	Older People	Communities
Income Levels	Low income Receipt of benefit	Low income		Means-tested benefits		
Income Dynamics	Periods of low income			Long-term recipients of benefits	Long-term recipients of benefits	
Economic circumstances		Living in workless households	Unemployment Low pay Status Zero		Spending on essentials No private income	
Access to work			Without a basic qualification	Wanting paid work without work 2+ years		
Education		Low attainment at school				
Health & well-being		Low birth weight babies	Problem drug use	LLSI Premature death	LLSI Excess winter deaths	
Access to services					Without a telephone	
Social stability, cohesion, vulnerability, crime		Births to girls conceiving under 16				Polarisation of work Burglaries
Housing						Overcrowding

4.19 The most recent version of this approach (Rahman *et al*, 2000) reports on 50 indicators (see Appendix D, Table D.1 for a full list). These were selected because they were judged to be relevant to the selected themes and also met three further criteria (Howarth and Kenway, 1998):

- Data were available regularly, thus excluding one-off surveys.
- The data sources were reputable (preferably official).
- The data should, as far as possible, be immune to perverse manipulation and administrative change.

4.20 Box G presents a description of the approach from the perspective of meeting the requirements of a poverty indicators framework.

Box G

Howarth *et al*'s Thematic Indicators Approach

Identification and measurement

- Number
 - Poverty not explicitly defined.
 - 50 indicators for various aspects of poverty & social inclusion
 - Un-weighted themes/domains
 - Key poverty domains include:
 - Number below relative income lines (HBAI)
 - Income dynamics (HBAI, BHPS, Receipt of benefits)
 - Economic circumstances – workless households, labour market position, low pay
- Trends
 - Key aspect of the analysis.
 - Dependent on data availability.

Profile

- Characteristics
 - Main profiles: Children, young adults, adults, older people, communities.
 - Selected profiling of various indicators by socio-economic and demographic characteristics.
 - Mainly social class status.
- Risk
 - Some of this. But principal focus is on numbers of individuals with selected socio-economic and demographic characteristics
- Concentration
 - Some of this.
- Location
 - Very limited. Mostly Great Britain totals or averages.

Scale and scope

- Depth
 - Proxy measures based on intensity of low income and economic circumstances.
- Persistence/dynamics
 - BHPS persistence indicator.
 - Augmented by length of time in receipt of benefit

Multiple dimensions

- Correlates
 - Purely descriptive presentation of trends and profiles
- Key policy areas
 - Thematic areas
 - Model for *Opportunity for All*

Data sources

- Surveys and administrative data
- Strong reliance on HBAI, LFS and Social Security statistics
- Three reports to date – 1998, 1999, 2000

Frequency

NI availability

- See Figure 4.3 and Appendix.
 - HBAI statistics not yet available, with limited possibility for time series data.
 - Most LFS and Social Security statistics available or could be developed
 - Some form of thematic indicators framework is feasible for NI
-

4.21 The main strengths of the approach are:

- Its coverage of various dimensions of poverty at the level of social groups and categories as opposed to places.
- The explicit incorporation of policy-relevant themes (see Figure 4.1). When cross-classified against various dimensions of poverty or deprivation, this provides one means of clarifying and highlighting the New TSN agenda and also in constructing a 'high-level' evaluation framework (e.g. indicators of need).
- The strong focus on policy-related trends provides a basis for establishing baselines and tracking progress on a range of important indicators (see, for example, Bradshaw's 2001 analysis of *Opportunity for All*, a variant of Howarth *et al*'s approach which is discussed below).

4.22 Clearly, the approach represents an advance on HBAI in its recognition of the multi-dimensional nature of poverty within the context of a range of key policy areas. This benefit is, however, obtained at some cost, as the profiling component of the Howarth *et al* approach tends to be rather more *ad hoc* and less structured than is the case with HBAI (Box G). This is not a fundamental weakness, as it represents a compromise between detailed analysis and the desire to paint a portrait of poverty and social exclusion across a wide range of dimensions in a reasonably concise and accessible format.

4.23 Nonetheless, there are three main difficulties with the approach. First, the concept of poverty used in the Howarth *et al* approach is broad to the point of imprecision:

The notion of poverty that has guided this report is that where people lack many of the opportunities that are available to the average citizen. Low income and limited expenditure, especially on essentials, will be indicative of this, but the report also includes many indicators of things that researchers have found to be disproportionately associated with low income, for example, certain forms of ill health and restricted access to services. (Howarth et al, 1998: 13).

- 4.24 In practical terms, the measurement of poverty in Howarth *et al* is primarily focused on the relative income line approach, augmented by indicators for labour market exclusion (e.g. workless households) and receipt of benefit. As discussed in Section 3 above, the relative income line approach is susceptible to a number of weaknesses. Principally, there is not a structured treatment of deprivation. This affects a number of the indicators in Howarth *et al*, especially those related to consumption such as spending on travel and 'essentials'. Howarth *et al*'s analysis of these indicators is unable, for example, to distinguish between tastes and deprivation-inducing enforced lack.
- 4.25 The second main weakness in the approach is the selection of indicators, particularly in the absence of a more rigorous definition of poverty. Selection of indicators tends to be (though it does not have to be) dictated by pragmatic considerations of data availability rather than logic, reason or theory. While a pragmatic approach is understandable, nonetheless it is not always clear how an indicator is specifically related to poverty and social exclusion. For example, Bradshaw (2001) asserts that school exclusions (indicator 13) affect only 0.16 per cent of pupils, but there is little or no evidence of an association between school exclusions and poverty.
- 4.26 The third main difficulty with the thematic indicators approach is that, partly because it draws on diverse data sources in an eclectic fashion it presents a purely descriptive analysis of trends. That is, it does not possess the analytical strength of either the PSE or ESRI approaches in analysing the correlates of poverty, as discussed below.
- 4.27 Taken together, these difficulties mean that the Howarth *et al* approach is perhaps less suited to distinguishing policy priorities than might otherwise be the case, that is, what domain or indicator sets are most important in tackling poverty? Another way of putting this is to say that the approach lacks criteria by which indicator sets can be given relative weights. Thus, the Howarth *et al* approach is very useful in providing a structured framework for laying out an agenda, but not necessarily in saying how that agenda needs to be addressed in deciding policy priorities.

- 4.28 While the Howarth *et al* approach has a number of weaknesses, the strengths are sufficient for it to be considered as one possible model for a NI indicators framework. A particular advantage is that the indicators are based entirely on readily available administrative and survey data. The absence of HBAI low income and persistence data has already been noted, but many of the data sources used by Howarth *et al* are readily available in Northern Ireland, including the Labour Force Survey (LFS) and various Social Security statistics. Table D.1 in Appendix D comments on the NI availability of each of the 50 individual indicators. Figure 4.2 overleaf provides a graphical summary of the NI availability of the indicators used in Howarth *et al*. The main point to note is that, apart from the HBAI data, the availability of NI data is sufficient for a thematic indicators approach to be feasibly implemented as a New TSN poverty indicators framework. The lack of HBAI data would, however, have to be addressed either by identifying an alternative source for a profile of people on low incomes or by relying on some combination of proxy indicators such as receipt of benefits or labour market status.
- 4.29 A further advantage of the approach is that the various Howarth *et al* studies for the Rowntree Trust (1998, 1999, 2000) have been very influential in Great Britain. As illustrated in Figure 4.3, the approach is strongly reflected in, and clearly provides a model for, the various *Opportunity for All* reports which the UK Government uses to report on progress being made in the implementation of policies to tackle poverty and social exclusion (DSS, 1999, 2000). This is obviously an important policy context to be reflected in a New TSN poverty indicators framework.

Figure 4.2 Howarth *et al*'s thematic indicators: N.I. data availability

	People & Groups					
Themes (key policy areas):	All individuals	Children	Young Adults	Adults	Older People	Communities
Income – HBAI, BHPS	Not yet available	Not yet available				
Income – Benefits				Potentially good	Potentially good	
Economic circumstances		Good availability	Potentially good		Good availability	
Access to/ disadvantage at work			Potentially good	Potentially good		
Education		Good availability				
Health & well-being		Good availability	Potentially good	Potentially good	Potentially good	
Access to services					Potentially good	
Social stability, cohesion, vulnerability, crime		Potentially good				Potentially good
Housing						Good availability

Not yet available
 Good availability
 Potentially good
 Partial

Figure 4.3 Opportunity for All thematic indicators

	People & Groups			
Themes (key policy areas):	Children & young adults	Adults	Older People	Communities
Income – HBAI	2(H9)	18 (H2, H3, H6)	27	
Income – Benefits		16 (H5)		
Economic circumstances	1 (H8), 10 (H19)	14, 15	24, 25, 26	32
Access to work		19 (H22)		
Education/early years	3, 4 5 (H12) 6 (H22) 7 (H13)			
Health & well-being	9/21	22, 23	30	
Access to services			31 9H38)	
Social stability, cohesion, vulnerability, crime	11, 12, 13	17, 20	29 (H37)	
Crime				33 (H44)
Housing	8		28	34

Notes: Indicators for which NI data are available are shown in bold italics. Where applicable, the corresponding Howarth indicators are identified in brackets. For example, H9 is Howarth *et al's* indicator number 9.

Composite Indicators and Sen's Capabilities Approach

- 4.30 An alternative approach to capturing the multidimensional nature of poverty within the context of a set of thematic indicators is exemplified by the United Nation's human poverty index for selected OECD countries, termed HPI-2 (UNDP, 2001: 241). This is a composite indicator that attempts to summarise the multidimensional nature of poverty by weighting together a set of indicators for various aspects of poverty.
- 4.31 The index is intended to capture lack of basic human capabilities¹⁷. At the present stage of development, it is primarily of use in making cross-

country comparisons and, as discussed in our scoping paper, would not adequately meet the objectives of a New TSN poverty indicators framework as set out in Section 2 above. What is interesting about the index is the conceptual underpinning, which owes much to Sen's capabilities approach to poverty, particularly the view that "poverty is ultimately a matter of capability deprivation".

- 4.32 Sen's approach is concerned with people's positive rights and attempts to transpose those rights into a space which is more easily measured by identifying the related concept of functioning (Laderchi 1997: 346). 'If poverty is understood to mean capability deprivation, then subsidies or employment creation for the more income deprived would not be sufficient to alleviate poverty. They would need to be coupled with measures to improve basic functionings relating to the health, nutrition and education of those who lack them most'. (Laderchi 1997: 348). Functionings or capabilities are in turn defined in terms of basic human needs such as the need for autonomy; the need for family life or intimate and socially supportive relationships; in addition to the directly physical needs of warmth, shelter, etc.
- 4.33 In principle, the capabilities approach allows us to establish a reasoned hierarchy of deprivation domains – what are the most important functionings and what capabilities must be addressed to achieve these - and therefore assists with aggregation across domains. For example, since health and nutrition, especially child nutrition, are not only valuable and basic needs in themselves but are also essential to individual capacities to achieve other functionings they can be safely assumed to be chosen as priority domains (Laderchi 1997: 149). Similarly, the capability to function effectively within complex informational environments is a foundation to other domains of life such as employment, parenting and political participation. Hence, education may be regarded as of equal importance to health and nutrition.
- 4.34 Sen's concept of poverty emphasises deprivation in terms of lack of capabilities to achieve adequate levels of functioning in domains that are critical to human welfare. This is a different conceptualisation of deprivation to that of, for example, PSE or the ESRI which focus on deprivation in the sense of unsatisfied basic needs.

- 4.35 Sen's highly theoretical approach is difficult to implement in practice. But any poverty strategy must address capabilities in key domains such as health and education. Weighting and 'aggregating' those domains, as attempted by HPI-2, is not feasible in the Northern Ireland context. The practical benefit of Sen's approach is therefore that it provides a way of thinking about domain and indicator selection in a multidimensional conceptualisation of poverty. Indeed, in some respects, Sen's concept of deprivation is more relevant to New TSN.
- 4.36 For example, 'employability' may be thought of as a basic capability in achieving a desired level of functioning in the labour market, which in turn affects the ability to satisfy various other categories of need. However, apart from its obvious relevance from a social policy perspective, the measurement of deprivation in consumption is rather more tractable in practice and, as discussed in Section 3 above, makes an important contribution to the critical issue of identifying the poor. It is therefore useful to consider how the PSE and ESRI approaches meet the requirements of a poverty indicators framework.

Income-deprivation Approaches

The PSE approach

- 4.37 The PSE approach to measuring poverty was discussed in Section 3 above. A key point to appreciate is that, while it can readily be repeated, the PSE study currently stands as a one-off exercise. To that extent, it provides a model for a baseline assessment of poverty. In that context, the main strengths of the PSE study as a poverty indicators framework, as described in Box G, include:
- The strong conceptual underpinning of the measurement of poverty. The approach can be used to estimate the poverty rate amongst the population.
 - The extensive profiling by socio-economic and demographic characteristics, including estimates for risk and concentration.
 - The statistical analysis of socio-economic and demographic correlates of poverty. This contributes to understanding why some people are more likely to be poor than others.

- While a similar analysis does not presently exist, it is feasible to implement the approach in Northern Ireland.

4.38 The main weaknesses include:

- Reflecting its status as a one-off exercise, the PSE study must address issues such as depth and persistence using proxy measures. These are subjective assessments in the PSE study (e.g. 'how long have you been in poverty'). This is inferior to a longitudinal panel study.
- The study focuses principally on deprivation in the sphere of consumption. The scope does not encompass the range of key policy areas that are, for example, captured by the thematic indicators approach.

Box H

The PSE indicators framework

Identification and measurement

- Number
 - Poverty is explicitly defined.
 - Enforced lack/deprivation model.
 - Strong conceptual and statistical underpinning.
 - Separate models for adults and children.
- Trends
 - Not a strong feature.
 - Some comparisons possible with two earlier Breadline Britain surveys.

Profile

- Characteristics
 - Extensive profiling by socio-economic and demographic characteristics.
- Risk
 - Estimated poverty rate presented for range of socio-economic and demographic characteristics.
- Concentration
 - Estimates for range of socio-economic and demographic characteristics.
- Location
 - Risk and concentration by GB region.
 - Inevitably constrained by sample size.

Scale and scope

- Depth
 - Proxy measures based on subjective assessments (form of Minimum Income Question).
- Persistence/dynamics
 - Proxy measures based on subjective assessments.

Multiple dimensions

- Correlates
 - Statistical models for relative odds of being poor – socio-economic and demographic characteristics.
- Key policy areas
 - Social inclusion

Data sources

- Original survey fieldwork.
 - GB Omnibus Survey for list of socially perceived necessities
 - Follow-up on individuals interviewed earlier for GHS (Great Britain).
Achieved sample size of 1,534.
Disappointing response rate.

Frequency

- One-off analysis.
- But could be updated.
- Not included in PSE study.
- Approach could, in principle, be replicated in Northern Ireland.
- Feasible to that extent.
- But would probably require a different sampling strategy.

NI availability

The ESRI Approach

- 4.39 In many respects, the ESRI provides the firmest foundations for the specification and implementation of a poverty indicators framework. As can be seen from Box I, the underpinning data infrastructure combined with the ESRI's analytical approach addresses many of the weaknesses in the indicator frameworks discussed to date.
- 4.40 The particular strengths of the ESRI framework include:
- A rigorous approach to the definition and measurement of poverty.
 - The use of a longitudinal panel data set (the Living in Ireland survey), enabling the ESRI to:
 - Monitor trends in all of the key poverty indicators; this has been particularly beneficial to the assessment of poverty in the Irish National Anti-Poverty Strategy.
 - Integrate analysis of the depth and persistence of poverty in a single data set.
 - A more substantial analysis of the depth of poverty, including the relationship between deprivation and economic strain and psychological distress.
 - Extensive profiling by socio-economic and demographic characteristics, including analysis of risk and concentration.
 - Substantial statistical modelling of the correlates of poverty. The incidence of various forms of deprivation – basic, secondary and housing – has been extensively analysed in a series of studies. Figure 4.4 overleaf provides an illustration of the factors considered in modelling basic deprivation scores.
- 4.41 The main weakness in the framework as it presently exists is that it remains weakly integrated with key policy areas outside the context of anti-poverty programmes. The role played within the NAPS is principally that of monitoring progress towards targets that are essentially a function of national macro-economic trends. Thus, for example, the Irish poverty framework is still under-developed in the context of issues such as tackling poverty-related inequalities in health and well-being.

4.42 This is, however, being addressed through work being taken forward by the Combat Poverty Agency with a view to proposing indicators in a wider range of NAPS policy areas, including educational disadvantage, housing, health, women in poverty, children, older people and unemployment in addition to income adequacy and overall poverty reduction. Indeed, it is worth remarking that these policy areas bear considerable resemblance to the domains of Howarth *et al's* thematic indicators approach.

Box I

The ESRI indicators framework

Identification and measurement

- Number
 - Poverty is explicitly defined.
 - Combined relative income line and enforced lack/deprivation model.
 - Strong conceptual and statistical underpinning.
 - Annual from 1994/95 baseline.
- Trends

Profile

- Characteristics
 - Extensive profiling by socio-economic and demographic characteristics.
 - Estimated poverty rate presented for range of socio-economic and demographic characteristics.
 - Main focus is on labour market characteristics.
 - Estimates for range of socio-economic and demographic characteristics.
 - Not a strong feature.
 - Sample size constraints, but rural/urban and urban size hierarchy comparisons possible
- Risk
- Concentration
- Location

Scale and scope

- Depth
 - Income distribution statistics available.
 - Analysed through relative income gap and squared gap measures.
 - Distinguish basic, secondary and housing deprivation.
 - Analyse survey-based scores for economic strain and psychological distress.
 - Longitudinal database.
 - Has now reached point where can look at dynamics e.g.
 - Proportion poor for N years as a fraction of all years in poverty
 - Exit and re-entry probabilities
 - Proportion experiencing basic deprivation by years poor
- Persistence/dynamics

Multiple dimensions

- Correlates
 - Incidence of deprivation has been extensively analysed using statistical models
 - Poverty monitoring for Irish National Anti-poverty Strategy (NAPS)
 - Social policy focus to date.
 - Living in Ireland Survey.
 - Panel Survey. Annual follow-up on those first interviewed in 1994.
 - Irish component of the European Household Panel.
 - Annual
- Key policy areas

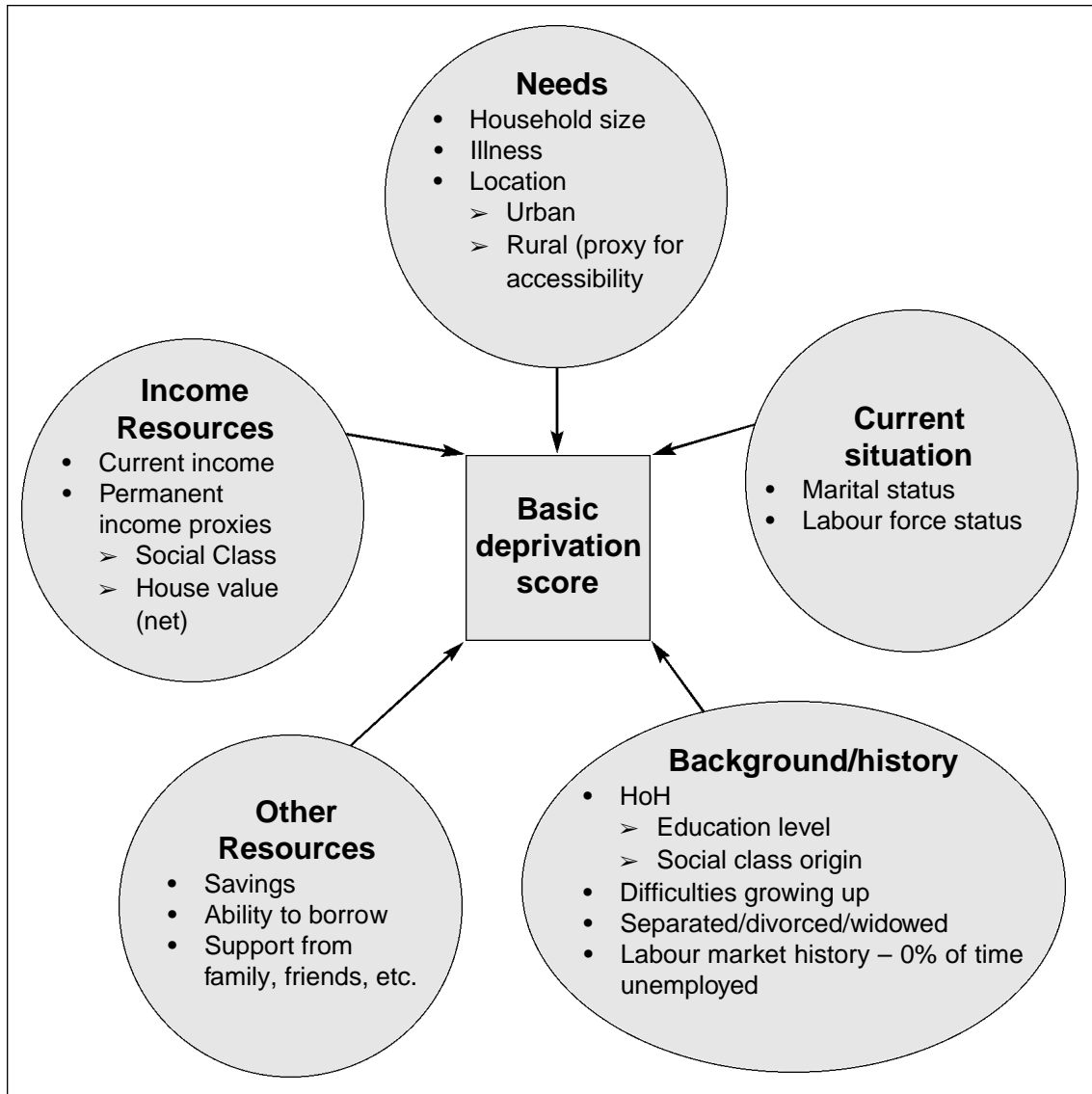
Data sources

Frequency

NI availability

- Approach could, in principle, be replicated in Northern Ireland.
- But advent of NI versions of FRS and BHPS make this unlikely.

Figure 4.4 Correlates of poverty: ESRI model for basic deprivation scores



Source: Nolan and Whelan, 1996.

4.43 The ESRI framework could, in principle, be implemented in Northern Ireland. The benefits in terms of trend analysis and indicators for the persistence of poverty would take quite some time to emerge, but other requirements of a poverty indicators framework (identification, profiling, and analysis of correlates of poverty) could be generated within a 2-3 year time horizon.

4.44 It is, however, unlikely to be the case that a fully-fledged Northern Ireland version of the Living in Ireland panel survey would prove to be cost-effective. This is because it is intended to implement both the FRS

and the BHPS in Northern Ireland. These will provide the basis for a HBAI-type analysis, thus meeting many of the requirements of a poverty indicators framework. In that context, the additional benefits arising from the panel element of the Living in Ireland Survey would be unlikely to justify the extra costs.

- 4.45 Nonetheless, as was pointed out above, the HBAI analysis on its own suffers a number of deficiencies in respect of a poverty indicators framework, including especially the identification and measurement of poverty and analysis of the correlates of poverty. These are gaps that need to be filled and it will certainly be the case that the ESRI model can provide a number of elements of good practice.

Conclusions

- 4.46 This Section has considered a number of models for a New TSN poverty indicators framework with respect to two criteria:
- The extent to which they meet the requirements of a fully specified poverty indicators framework.
 - The availability of NI data.
- 4.47 The key features of each of the models in terms of meeting the requirements of a poverty indicators framework are summarised in Box J overleaf, along with an assessment of the main strengths and weaknesses of each approach and the feasibility of implementing the approach in Northern Ireland.
- 4.48 Based on the foregoing review, the ESRI approach best meets the requirements of a poverty indicators framework. The main reasons for this are that it is underpinned by a panel data source that provides information on income distribution, enforced lack and persistence over time. Based on this, it is possible to implement a combined income-deprivation model for identifying people in poverty as a basis for socio-economic and demographic profiling as well as analysis of the correlates of poverty. While this framework could be implemented over some period of time, the advent of the FRS and BHPS in Northern Ireland inevitably squeezes resources – both financial and human –

and also reduces the additional benefits that would accrue from a Northern Ireland version of the Living in Ireland survey.

- 4.49 The PSE approach is similar to the ESRI approach in a number of respects, including the use of an income-deprivation approach to poverty measurement. Because it is based on a one-off survey it does not fully meet the requirements for a poverty indicators framework. The approach could, however, be implemented within the context of an overall data collection strategy. Both HBAI and the thematic indicators approach currently lack a deprivation perspective on poverty so a gap will remain to be filled even after FRS and BHPS come 'on-stream' in Northern Ireland. This would, however, take time and an interim position needs to be adopted, for example, to establish a baseline picture of poverty.
- 4.50 Considerable data exists for the implementation of a thematic indicators framework along the lines of Howarth *et al* or *Opportunity for All*. This type of approach has a number of advantages and the preparation of such a framework for Northern Ireland would represent an advance on the current position. Clearly, however, the lack of a HBAI-type analysis for profiling people on low incomes represents a significant gap in the availability of data for fully implementing such an approach in Northern Ireland, at least within the time horizon of the current New TSN Action Plans. This issue is addressed in detail in the next Section of this report, which considers the establishment of a baseline profile of people on low incomes.

Box J

Models for a poverty indicators framework: Assessment

	HBAI	Thematic Indicators	PSE	ESRI
PIF components				
<ul style="list-style-type: none"> ■ Concept and measurement <ul style="list-style-type: none"> • Not defined • Basis for relative income line analyses <ul style="list-style-type: none"> • Strength • Limited • Absent • Limited • FRS & BHPS • Mixed integrated, unrelated • Mainly cross-sectional ■ Profile <ul style="list-style-type: none"> • Not well defined • Relative income line and unrelated proxy indicators <ul style="list-style-type: none"> • Trend analysis • Limited • Absent • Strength • Mixed integrated, unrelated • Primarily trends in cross-sectional data ■ Scale and scope <ul style="list-style-type: none"> • Strength • Limited • Strength • Limited ■ Correlates of poverty <ul style="list-style-type: none"> • Explicitly defined • Deprivation score thresholds and deprivation scores <ul style="list-style-type: none"> • Strength • Strength • Strength ■ Key policy areas <ul style="list-style-type: none"> • Needs developing • Integrated • Panel study 	<ul style="list-style-type: none"> • Not well defined • Relative income line and unrelated proxy indicators <ul style="list-style-type: none"> • Trend analysis • Limited • Absent • Strength • Mixed integrated, unrelated • Primarily trends in cross-sectional data 	<ul style="list-style-type: none"> • Explicitly defined • Deprivation score thresholds and deprivation scores <ul style="list-style-type: none"> • Strength • Limited • Strength • Limited • Integrated • One-off exercise 	<ul style="list-style-type: none"> • Explicitly defined • Combined relative income line and deprivation scores <ul style="list-style-type: none"> • Strength • Strength • Strength • Needs developing • Integrated • Panel study 	
Data				
Main strengths	<ul style="list-style-type: none"> • Profiling of income distribution 	<ul style="list-style-type: none"> • Setting out an agenda • Multiple dimensions • Monitoring progress 	<ul style="list-style-type: none"> • Measurement & identification • Profiling & correlates 	<ul style="list-style-type: none"> • Best meets requirements of a PIF
Main weaknesses	<ul style="list-style-type: none"> • Lack of deprivation dimension hampers measurement of poverty 	<ul style="list-style-type: none"> • Deprivation dimension absent • Selection of indicators - pragmatic but <i>ad hoc</i> approach 	<ul style="list-style-type: none"> • One-off survey • Depth & persistence 	<ul style="list-style-type: none"> • Linkage to key policy areas
NI data availability	<ul style="list-style-type: none"> • Not yet 	<ul style="list-style-type: none"> • Missing low income statistics (HBAI, BHPS) • But reasonable for many other indicators • A version could be specified 	<ul style="list-style-type: none"> • Feasible to implement • Survey vehicles already exist in NI • Could be done as bespoke version 	<ul style="list-style-type: none"> • Feasible to implement in principle • But FRS and BHPS will reduce need for a fully-fledged version

5 People on Low Incomes

Introduction

- 5.1 The purpose of this Section is to assess the possibility of establishing a baseline of poverty from existing data sources. As was noted in the preceding Section, there is presently no data source available for incorporating a deprivation dimension into a picture of poverty in Northern Ireland. This would require original survey work, and we return to this issue in Section 7 below where we consider a data collection strategy for a poverty indicators framework. Hence, the focus here is on data sources for establishing an interim baseline position with respect to the income dimension of poverty in Northern Ireland.
- 5.2 The Section commences with a discussion of the **identification and measurement** of poverty from a relative income perspective. This requires information on the distribution of equivalised household income. This would need to be comparable to HBAI to facilitate comparisons with GB average proportions for those below various fractions of mean GB income. Though the FRS is not yet available, its predecessor - the Family Expenditure Survey (FES) - has been carried out annually in Northern Ireland since 1967. Hence, we consider the feasibility of using the FES to provide the requisite information. For various reasons, there are difficulties in using the FES for this purpose and hence reliance is placed on proxy indicators to provide a qualitative assessment of the incidence of low incomes in Northern Ireland.
- 5.3 The next stage of the assessment is to consider the preparation of a **profile** of people on low incomes. The assessment of this component of a poverty indicators framework is based on the use of the Continuous Household Survey (CHS) to prepare a profile of the socio-economic and demographic characteristics of people on low incomes. Initial results from the use of the CHS are presented for all individuals as well as children, working-age people and pensioners. Prior to drawing conclusions, a number of indicators are discussed with respect to **trends** in the number of people on low incomes and the persistence of low incomes.

Measurement and identification

The Family Expenditure Survey

- 5.4 The FES is a national UK survey with the primary purpose of providing data on expenditure patterns from which weights for the Index of Retail Prices can be derived. An enhanced sample is drawn in Northern Ireland designed to be representative of the population of private households. Information is also collected on incomes and various socio-economic and demographic characteristics of co-operating households. Until 1996, when it was replaced by the FRS, the FES was therefore the primary source of household income data for HBAI (see Section 3 above).
- 5.5 For that reason, the possibility of using the FES to provide a baseline of people on low incomes, comparable to HBAI, was discussed with NISRA's Central Survey Unit (which maintains the NI FES). A number of problems were identified in the course of these discussions.
- 5.6 The first problem identified was that, though an enhanced sample is drawn in Northern Ireland, the sample size in any one year of the FES is too small to provide robust and reliable income distribution statistics. Typically, about 600 households participate in the NI FES every year, covering about 1,700 individuals. Clearly, a larger sample size would be required in order to provide meaningful results for a profile of people on low income. For example, assuming that, as a rough order of magnitude, the percentage of NI individuals living in households below half the GB mean income was somewhere between 25 and 30 per cent, a single years run from the FES would yield only about 150-180 households, covering perhaps 4-500 individuals. This would not be a sufficient sample base to provide a socio-demographic profile of people on low incomes, especially since a number of groups with high risks of being on a low income account for relatively small proportions of the total population. In the 1998/99 HBAI, benefit units classified as head or spouse unemployed contained only four per cent of all individuals (see Table 4.1 above). But this is obviously an important economic status category from the perspective of a profile of people on low incomes.

- 5.7 The sample size issue could, in principle, be addressed by pooling data for a number of years. Thus, in the FES Report for 1998/99, statistics for income and expenditure by religion of head of household are obtained by pooling three years data. However, CSU cited two further problems with the use of the FES in the present context.
- 5.8 First, while the FES and FRS seek very similar kinds of information on incomes, there are some differences as the FRS asks some additional questions on household resources. Further, the surveys differ in the methods used to collect information. With the FES, respondents are asked to keep a diary for two weeks. By contrast, the FRS collects information in the course of a single visit to the household. For these reasons, a 1999 baseline established with the FES would not be directly comparable with results from FRS when these become available. To obtain such comparability, it would be necessary to link the relevant data series on a common year. This is not impossible to do, and it is worth noting that the changeover from the FES to the FRS in Great Britain produced relatively minor net changes in various income distribution statistics. The matter would be more complicated in Northern Ireland, since the small sample size in any one year would make linking more difficult.
- 5.9 Second, since the changeover from FRS to FES, procedures no longer exist with which to use FES to calculate net disposable income on a comparable HBAI basis, thereby facilitating the estimation of key poverty risk indicators such as the proportion living in households with some fraction of mean GB income.
- 5.10 The requisite procedures are quite extensive with changes occurring from one year to the next due to the need for 'fixes' to adjust for data irregularities and missing data patterns that vary from one year to another; the 1997 run for HBAI entailed the use of close to 50 separate SAS procedure files. Such procedures would therefore have to be developed and this would entail a level of resource that CSU states it does not have available at this time. A further complicating factor cited by CSU is that the branch uses a different database management system to the HBAI branch in DSS.

5.11 For all of the above reasons, CSU are presently not in a position to devote the necessary resources, which would be significant, to obtaining a set of income distribution statistics from the NI FES that could be compared with those produced by HBAI. In particular, it is felt that the forthcoming availability of FRS results mean that there is now less of a need to make use of the FES.

Proxy indicators

5.12 Ideally, we would like to know what proportion of the NI population is below some fraction of average GB income, as measured using HBAI. One response to the non-availability of a direct estimate from the FES is to seek to make an assessment based on proxy or surrogate indicators that are correlated with the incidence of low income. Such an approach cannot be relied upon to provide a precise estimate for Northern Ireland. Rather, we can only make a qualitative assessment of the NI position, that is, whether the incidence of low income is likely to be lower or higher or about the same.

5.13 The simplest way forward on that front is to calculate some form of 'mix-adjusted' or predicted proportion below the GB mean by applying HBAI risk ratios by family type and/or economic status (e.g. Table 4.1 above) to the Northern Ireland distribution of individuals by family type and/or economic status. HBAI produces a range of relative income lines on both a before housing costs (BHC) and after housing costs (AHC) basis. Two such relative income lines are shown in Table 5.1, that is, the proportion below 50 per cent of the mean and 60 per cent of the median. The former is the most commonly used in analysis of people on low incomes in Great Britain. The median measure corresponds to the EU's recommended income threshold for low-income individuals.

Table 5.1 Individuals below average income: Great Britain, 1998/99

	All individuals		Children	
	50% of Mean %	60% of Median %	50% of Mean %	60% of Median %
Including self-employed				
Before housing costs	19	18	26	24
After housing costs	25	24	35	33

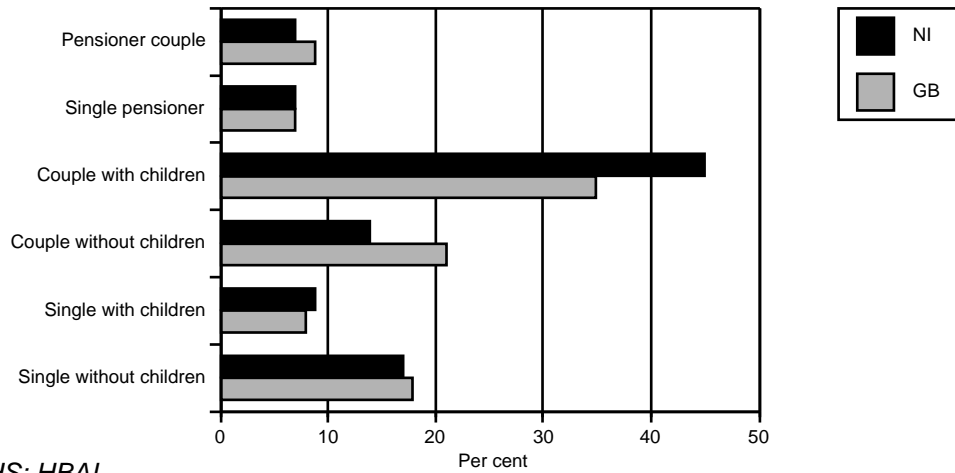
Source: DSS, HBAI.

- 5.14 As can be seen from Table 5.1, the use of half the mean or 60 per cent of the median makes relatively little difference to the percentage below the relevant income threshold. However, for any given income threshold, the choice of income AHC or BHC makes an appreciable difference, in the order of six percentage points for all individuals and nine percentage points for children. Partly, this reflects the use of different equivalence scales for AHC and BHC measures. Primarily, the difference is due to the fact that housing costs tend to comprise a larger share of after-tax income for lower-income households. In 1998/99, mean income AHC was 71 per cent of mean income BHC for individuals in the bottom decile of the income distribution compared to 89 per cent for those in the top ten per cent. Thus, income AHC tends to 'spread' the income distribution rather more than when income BHC is used.
- 5.15 Our preference is for the AHC measure. In part, this is because the treatment of housing costs in FRS is less than satisfactory (Hills, 1998). Mostly, however, AHC is preferable because this measures the resources left over for the household to meet the various other basic and secondary needs required to maintain a reasonable standard of living. That is, AHC better measures what a household has available to stave off deprivation in a PSE or ESRI concept of poverty (see, for example, the items listed in Table A.1 or B.2).
- 5.16 Thus, for the purpose of calculating a simple mix-adjusted prediction for Northern Ireland, we use the HBAI risk ratios based on income AHC for people living in households with incomes below half the mean, by family type and/or economic status (see Table 4.1 above). These

ratios are applied separately for children, working-age adults and pensioners. Whether the application of these ratios gives a higher or lower predicted incidence of low income in Northern Ireland compared to Great Britain depends on the extent to which NI differs in terms of family type and/or economic status.

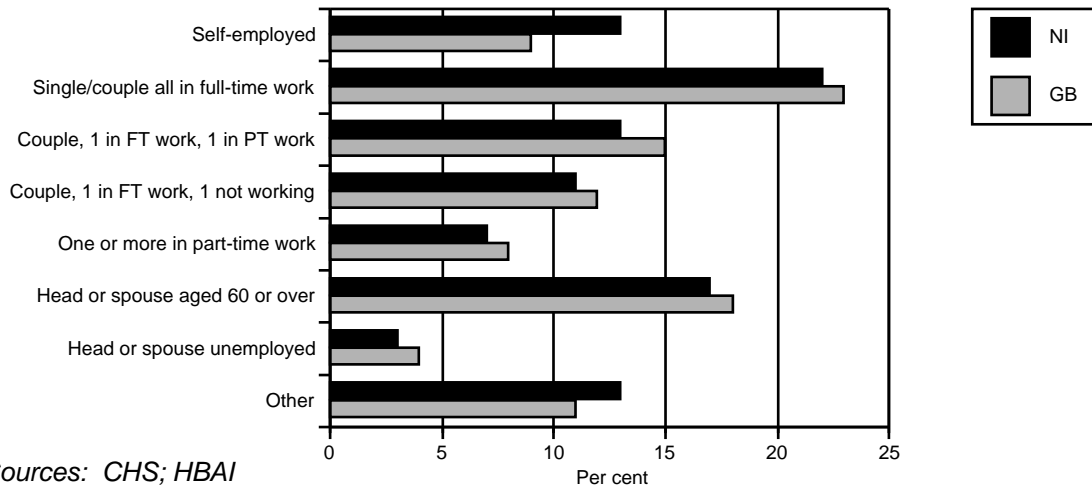
- 5.17 Estimates for the distribution of the NI population by family type and economic status are reproduced in Figures 5.1 and 5.2. Figure 5.3 shows the distribution of children by economic status of the family. These distributions are estimated from the Continuous Household Survey (CHS), discussed further below. Comparable distributions are shown for Great Britain, from HBAI.
- 5.18 Considering the distribution by family type (Figure 5.1), the main point of contrast is the larger share of individuals living in couples with children in Northern Ireland (45 per cent) compared to their share in Great Britain (36 per cent). The counterpart to this is a lower share in Northern Ireland of couples without children (14 per cent compared to 22 per cent). Reflecting this, children comprise a larger share of the population in Northern Ireland, 28 per cent compared to 23 per cent.
- 5.19 The contrasts in the distribution by economic status (Figure 5.2) are less pronounced than those by family type. The main point of interest is the greater proportion of families with one or more full-time self-employed people in Northern Ireland, 12 per cent compared to nine per cent. This is most likely due to the higher profile of agriculture in Northern Ireland's industry mix.
- 5.20 These variations by family type and economic status are further reflected in the distribution of dependent children by economic status of the family. As Figure 5.3 shows, Northern Ireland contains a higher share of children in families with one or more full-time self-employed adult and also in families with one or more full-time employee with three or more children.

Figure 5.1 Distribution by family type: All individuals



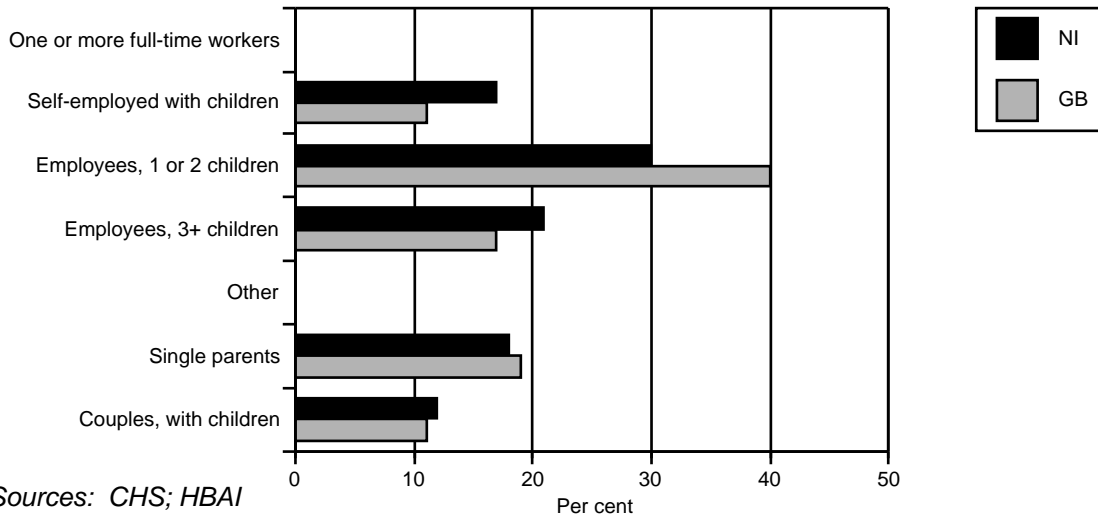
Sources: CHS; HBAI

Figure 5.2 Distribution by economic status: All individuals



Sources: CHS; HBAI

Figure 5.3 Distribution of dependent children by economic status of the family



Sources: CHS; HBAI

- 5.21 As was illustrated in Table 4.1 above, in Great Britain the risk of low income varies substantially by family type and economic status. The overall patterns could be expected to be broadly the same in Northern Ireland. Thus, it would be anticipated that work-rich households would have a below-average risk of low income in Northern Ireland as they do in Great Britain.
- 5.22 Nonetheless, even if the risk of low income by family type and economic status was exactly the same in Northern Ireland as in Great Britain, it would still be expected that the proportion below half average income would vary somewhat in Northern Ireland from the overall Great Britain average of 25 per cent. The reason for this is the variation between Northern Ireland and Great Britain in the composition of the population by family type and economic status. In fact, if HBAI low income risk ratios are applied to the Northern Ireland population distribution by family type and economic status, the predicted proportion below half average GB income in Northern Ireland is 27 per cent, or two percentage points in excess of the GB average. This is almost entirely due to the higher proportion of children in the Northern Ireland population. According to HBAI, children have a substantially higher risk of low income than do adults, 35 per cent versus 22 per cent (see Table 4.1).
- 5.23 Of course, the risk of poverty within each of the family type and economic status groups may be different in Northern Ireland compared to Great Britain. The available evidence would suggest that low income risk ratios are, if anything, higher in Northern Ireland than in Great Britain. Table 5.2 presents a number of indicators that support this assertion:
- The proportion of working-age adults in receipt of a key or means-tested benefit is higher in Northern Ireland than in Great Britain.
 - Average incomes per capita and average weekly earnings were both well below the Great Britain average in 1998/99.
 - A higher proportion of children in Northern Ireland live in working-age households where no adult has a job.

- Northern Ireland households are less likely to be ‘work-rich’ (every working-age adult has a job) than their counterparts in Great Britain.
- Similarly, they are more likely to be ‘work-poor’ (no adult has a job) and to contain someone who is unemployed.

5.24 Considering all of the above, it is reasonable to conclude that low-income risk ratios are probably higher in Northern Ireland than in Great Britain, so that the proportion living in households below the mean is in excess of the 27 per cent estimate produced by taking account only of differences in the mix of family types and economic status groupings.

Table 5.2 Income indicators: NI compared to GB/UK

	NI %	GB/UK %
Working-age adults in receipt of, 1998 ¹ :		
• Key benefit ²	25.9	17.0
• Means-tested benefit ³	13.9	10.7
Gross disposable income 1998/99 ⁴		
• Per household (NI as per cent of UK)	81.4	100.0
• Per person (NI as per cent of UK)	70.2	100.0
Average weekly earnings, 1999 ⁵		
• All (NI as per cent of GB)	86.2	100.0
• Public sector (NI as per cent of GB)	100.2	100.0
• Private sector (NI as per cent of GB)	77.9	100.0
Children living in households without work, 1999 ⁶	18.5	17.3
Economic activity of household, 1999 ⁷		
• Work-rich - all persons in employment	42.5	55.6
• Workless – no-one is in employment	20.6	17.2
• At least one person unemployed	9.9	8.6

Notes:

¹ Source: NI – DSD; GB – DSS, Cross-Benefit Analysis

² Income Support, Job-seekers Allowance, Incapacity Benefit, Sever Disablement Allowance, Disability Living Allowance, Disability Working Allowance, Family Credit (since replaced with Working Families Tax Credit).

³ Income Support, Job-seekers Allowance, Disability Working Allowance, Family Credit.

⁴ Source: NISRA, Family Expenditure Survey Report for 1998/99

⁵ Source: DETI, New Earnings Survey.

⁶ Source: DETI, Labour Force Survey (special run)

⁷ Source: Labour Force Survey. From DETI, Households in Northern Ireland in the 1990s.

5.25 It is not possible from the data presently available to say precisely how much larger is the proportion below half the mean in Northern Ireland compared to Great Britain. The proportion is very likely to be above 27 per cent but unlikely to be in excess of 30 per cent. For example, the highest regional rate in Great Britain - 29 per cent - is found in the North East region. There, the unemployment rate is above that for Northern Ireland but the economic activity rate is slightly higher and receipt of key benefits is lower.

Profile

The Continuous Household Survey

5.26 An important objective of a poverty indicators framework is to provide a profile of those who are poor. Hence, we now focus on the availability of information on the socio-economic and demographic characteristics of persons living in low income households in Northern Ireland.

5.27 An obvious choice of data for this purpose is the FES. As discussed above, this is unfortunately not currently available in a readily useable form for present purposes. However, an alternative source of income information is available from the Continuous Household Survey (CHS). The CHS is one of the largest continuous surveys carried out in Northern Ireland. It is based on a sample of the general population and has been running since 1984.

5.28 As the name implies, the Survey is administered on a household basis. The questionnaire itself is, however, comprised of two parts, a household section and an individual section for each person aged 16 and over in the household (Figure 5.4). Each of these main sections comprises a core part, consisting of a set of questions that are asked on each occasion that the Survey is conducted, and a non-core part. The latter contains a set of items that are repeated at regular intervals.

5.29 Income is one of the core questions in both the household and individual sections. To test the feasibility of using the CHS for a profile of people in low-income households, we have concentrated on the household question, which asks the head of household to provide an estimate of the total gross annual income of the household from all

sources. There are three major disadvantages associated with this income question for our purposes. First, income is measured on a gross basis. Information is not sought on deductions such as tax and national insurance contributions. Nor is information collected on housing costs such as mortgage or rental payments.

5.30 Second, the responses are coded in a set of 30 income bands. Thus, the income variable is categorical rather than continuous. Further, the highest income band, which is bounded only at its lower limit, accounts for a substantial share of the responses (Figure 5.5). This means that it is not appropriate to calculate, for example, mean income per household. The third major problem with the CHS income data is that there is a relatively high rate of non-response (12 per cent).

Figure 5.4 The Continuous Household Survey: Structure and topics

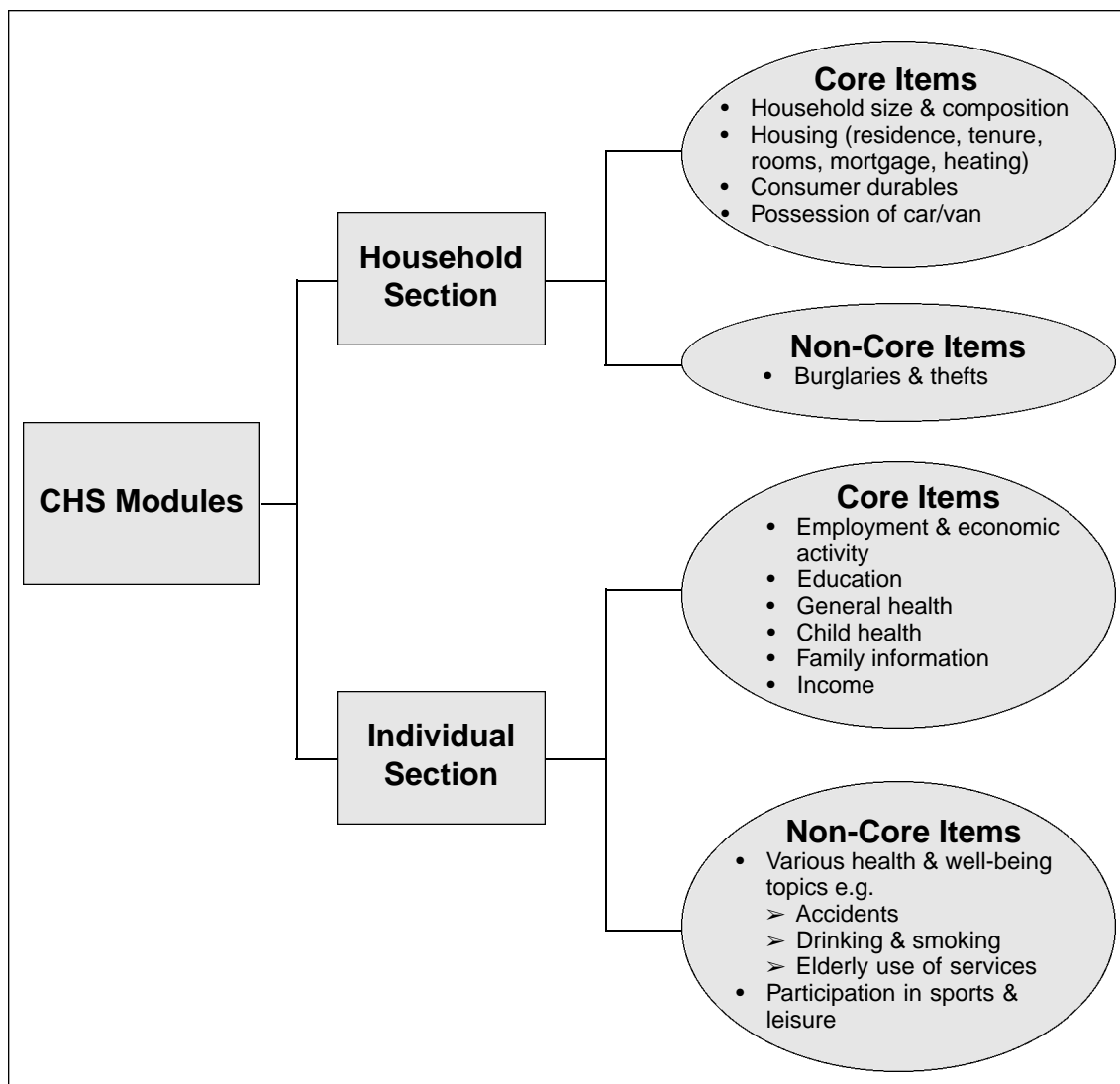
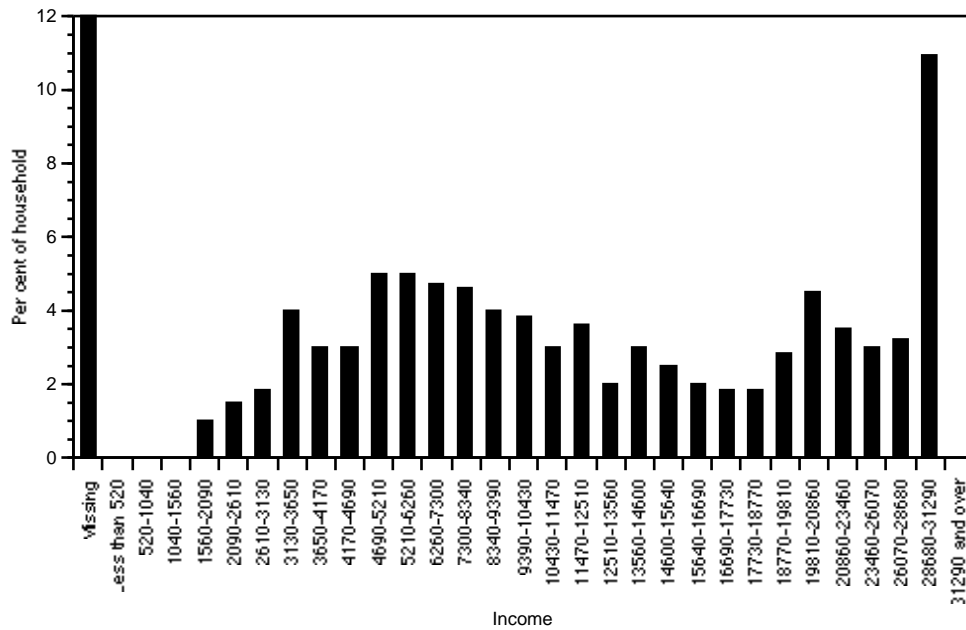


Figure 5.5 Gross household income in the CHS



- 5.35 What is required is a distribution based on equivalised household income, as described in Section 3 above. The interest in this study is, however, primarily the lower end of the equivalised income distribution, especially the bottom 30 per cent. Based on the preceding discussion, the bottom 30 per cent is the most likely to provide a surrogate profile of people on low incomes.
- 5.36 Two features of the CHS income data suggest that this objective is feasible:
- Excluding the unbounded upper income band, the first 29 income bands are relatively narrow (see Figure 5.5). Thus, a reasonable estimate of a household's gross income can be obtained by taking the mid-point of the relevant income band range.
 - Though a substantial number of households reported a gross income in the 30th income band, nonetheless the proportion is small enough that these households may not necessarily fall into the bottom 30 per cent of the **equivalised** income distribution.
- 5.37 The following steps were therefore implemented to identify households with gross equivalised incomes in the bottom 30 per cent of the income distribution:
- Calculate point estimates for gross household income such that:
 - If the household reported a gross income in the 30th income band, then its household income was set to £31,290.
 - For income bands 1-29, gross income was approximated using the mid-point of the relevant income band.
 - Calculate equivalised household income, based on the scale used in the Poverty and Social Exclusion (PSE) study¹⁸. This scale was chosen partly to distinguish the approach from HBAI.
 - Sort the households into quintiles based on equivalised gross household income.
 - Check to see what proportion of households with unadjusted gross income in the 30th band fall into the bottom two quintiles. As it transpired, this only happened in one instance. Thus, we can

be reasonably assured that the equivalisation process would not have resulted in households in the 30th income band falling into the bottom 30 per cent of the equivalised distribution.

5.38 The foregoing is obviously a very simplified approach, and it is possible to refine the analysis using the individual responses to CHS income questions¹⁹ (these cover earnings, benefits and investment income, again mostly using income bands). Nonetheless, the method was effective in providing a reasonably unambiguous identification of households in the bottom 30 per cent of the equivalised income distribution, based on their reported gross income and household size and composition characteristics.

5.39 It is, however, appropriate to further consider the usefulness of the approach by considering some key aspects of the socio-economic and demographic profiles for, respectively:

- All individuals.
- Children.
- Working-age adults.
- Pensioners.

5.40 The key issue addressed is the extent to which the method described above produces credible results in terms of socio-economic and demographic variations in low income risk and concentration ratios. In each of the Tables that follow, and the additional results provided in Appendix E, the number of people in the bottom 30 per cent by category is presented grossed-up to match the 1999 age and gender distribution of the Northern Ireland population. The grossing factors were derived from the sampling fractions by age and sex after omitting those cases where the income variable was missing. This is the only adjustment made for non-response, though obviously more sophisticated methods are available.

Table 5.3 Individuals living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	'000s	Per cent	Per cent	Per cent
All individuals	509	30	100	100
Men, women & children				
All children	181	38	36	28
All women	184	29	36	37
All men	145	24	28	35
All adults	328	27	64	72
Family type (benefit unit)				
Pensioner couple	34	28	7	7
Single pensioner	47	37	9	7
Couple with children	181	24	36	45
Couple without children	29	12	6	14
Single with children	124	77	24	10
Single without children	94	34	18	16
Economic status (benefit unit)				
Self employed	38	18	7	12
Single/couple all in full time work	35	10	7	21
Couple, one in full time work, one in part time work	16	7	3	13
Couple, one in full time work, one not working	45	24	9	11
One or more in part time work	61	52	12	7
Head or spouse aged 60 or over	90	32	18	16
Head or spouse unemployed	47	84	9	3
Other	156	75	31	12
Not known	22	42	4	3

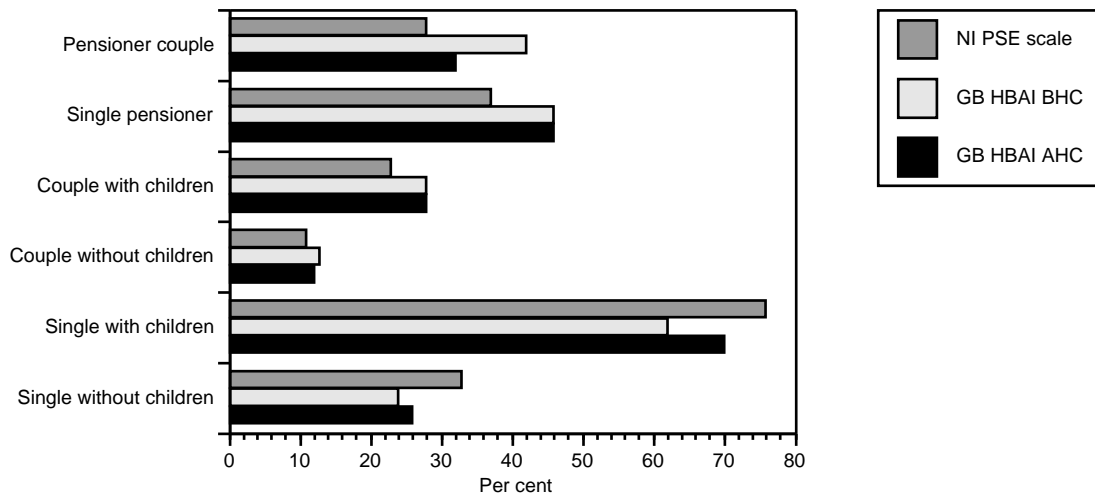
Notes:

- ¹ Based on equivalised gross household income.
- ² Grossed-up survey results, weighted to reflect age and gender composition of NI population.
- ³ Risk ratio – Number in group below the 30 per cent threshold as a percentage of the total number in the group.
- ⁴ Concentration ratio – Number in group below the 30 per cent threshold as a percentage of all individuals below the 30 per cent threshold.
- ⁵ All individuals in the group as a percentage of all individuals.

All individuals

- 5.41 The main results for all individuals, by family type, economic status and men, women and children are presented in Table 5.3. Additional analyses by selected variables made available by CSU from the CHS are presented in Table E.1 of Appendix E below.
- 5.42 In interpreting the results it is very important to bear in mind that these are based on the bottom three deciles of a derived equivalised income distribution. Once we know the size of the total population, this immediately determines the total grossed-up number of individuals, that is, 30 per cent of the population. By contrast with relative income thresholds such as half the mean, this number changes only with the size of the population and cannot reflect improvements in the position of low income households relative to the mean²⁰. As noted above, the 30 per cent point was chosen since the bottom three deciles are likely to encompass individuals living in households with incomes below half the mean.
- 5.43 One of the main points of interest for a profile of low incomes is the extent to which certain groups are more or less likely to be found in the bottom 30 per cent. The results shown in Table 5.3 suggest that the bottom end of the CHS income distribution well reflects the pattern of variations that can be expected from, for example, the HBAI analyses shown in Table 4.1 above. Thus, lone parents exhibit a high risk of appearing in the bottom 30 per cent while families with full-time earners exhibit a contrasting low risk.
- 5.44 Though they are not strictly comparable, it is interesting to note that the pattern by family type is broadly consistent with the HBAI results (Figure 5.6). There are some differences, as pensioners are more likely to appear in the bottom 30 per cent of the HBAI income distribution, either AHC or BHC.
- 5.45 Partly, this is likely to reflect the fact that the PSE equivalence scale gives greater weight to children than does the McClements scale used in the HBAI. The PSE scale also includes an additional weighting if the head of the household is a lone parent (see end-note 18).

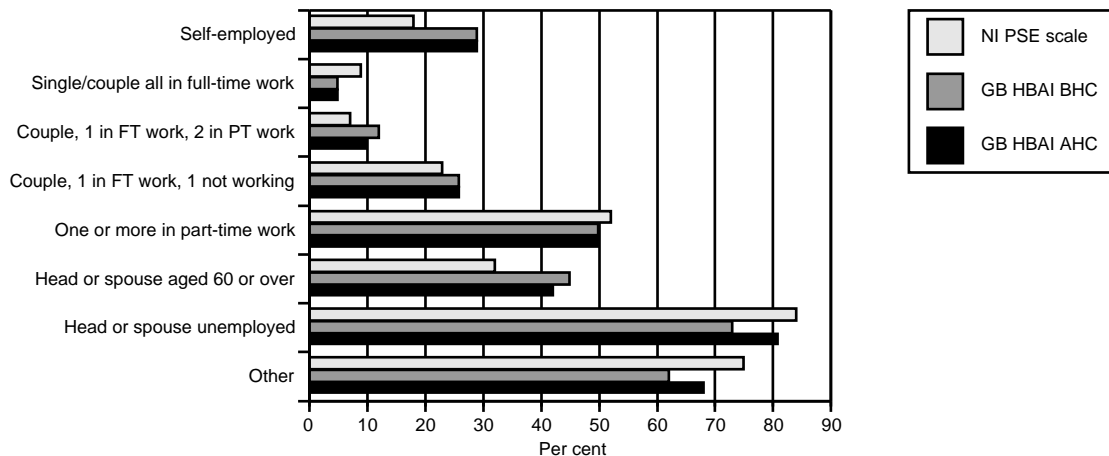
Figure 5.6 Individuals living in bottom 30 per cent Family type



Source: CHS; HBAI.

5.46 A broadly similar picture is obtained when the CHS results by economic status for the bottom 30 per cent are compared with HBAI (Figure 5.7). The overall pattern in the distribution by economic status of the risk of being in the bottom 30 per cent of the CHS equivalised income distribution is comparable to the HBAI results either AHC or BHC. Again, there are some differences. The influence of variations in equivalence scales is once again suggested by an apparently higher risk for individuals living in families with one or more part-time workers. This is a category that is dominated by couples with children (43 per cent) and single parents (22 per cent).

Figure 5.7 Individuals living in bottom 30 per cent Economic status



Sources: CHS; HBAI.

- 5.47 Overall, the ‘top-line’ results for all individuals in the bottom 30 per cent of the CHS distribution can fairly be said to offer a credible picture of variations by family type and economic status. Other indicators profiled in Appendix E are also in line with expectations. For example, individuals in the public rented sector have a 65 per cent risk of being in the bottom 30 per cent compared to 15 per cent for those owning with a mortgage. Similarly, the age distribution shows a familiar U-shaped pattern while the risk of low income increases with the number of dependent children in the household.
- 5.48 Risk ratios are useful to examine, since they show where the incidence of low income is highest. But the concentration ratios are also of interest since these indicate which groups of individuals account for the largest share of people in low incomes. For example, people in public rented dwellings are estimated to account for close to half of those in the bottom 30 per cent, more than double their 22 per cent share in the total population (Table E.1).

Table 5.4 All individuals living in households on low incomes, based on CHS data: Receipt of benefit

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ² <i>'000s</i>	Risk ratio ³ <i>Per cent</i>	Concentration ratio ⁴ <i>Per cent</i>	<i>Per cent</i>
Key benefit (CHS)				
Yes	303	57	60	31
No	206	18	40	69
Means-tested benefit (CHS)				
Yes	253	71	50	21
No	256	19	50	79
Adjusted for DSD count of claimants and dependents⁶				
Yes	337	71	66	28
No	172	14	34	72

Notes:

¹⁻⁵ See Table 5.3.

⁶ From NI Measures of Deprivation, Income Domain.

- 5.49 The foregoing offers a positive perspective on the use of the CHS to provide a profile of people on low income. Within that context, the main problem is that there appears to be significant under-reporting of receipt of benefit by CHS respondents.
- 5.50 The problem is illustrated in Table 5.4. According to the data published for the Income Domain in the NI Measures of Deprivation, the proportion of the population living in families in receipt of a means-tested benefit should be in the order of 28 per cent. But the overall self-reported incidence according to the CHS is 21 per cent. This under-reporting most directly affects the concentration ratio measure.
- 5.51 It does not, however, necessarily affect the CHS-based risk ratio for people who report themselves as being in receipt of a benefit. For example, the risk ratio for people in the bottom two quintiles of the CHS is estimated at 84 per cent. This is very similar to the risk ratio for benefit recipients in the bottom two quintiles of the HBAI. Thus, if the risk ratio for those reporting that they receive a benefit is reasonable, then it is possible to calculate an adjusted concentration ratio for these individuals. This is shown as 66 per cent in Table 5.4.
- 5.52 The implication is that, if we accept the CHS risk ratio for people who say they are in receipt of a means-tested benefit, then one in three of those in the bottom 30 per cent of the income distribution are not in receipt of a benefit. That is, receipt of benefits is an imperfect proxy for the risk of low income.

Table 5.5 Children living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	'000s	Per cent	Per cent	Per cent
All	181	38	100	100
Family type (benefit unit)				
Couple with children	100	27	55	78
Single with children	81	80	45	22
Economic status (benefit unit)				
1+ full-time workers self-employed	18	23	10	17
1+ full-time workers - 1-2 children	9	6	5	29
1+ full-time workers - 3+ children	28	29	15	21
Others - single parents	75	88	41	18
Others - couples w/children	47	77	26	13
Not known	5	42	3	3
Economic status of adults in family				
Working full-time	54	17	30	67
Working part-time	25	63	14	8
Not working	96	91	53	22
Not known	5	42	3	3

Notes:

¹⁻⁵ See Table 5.3.

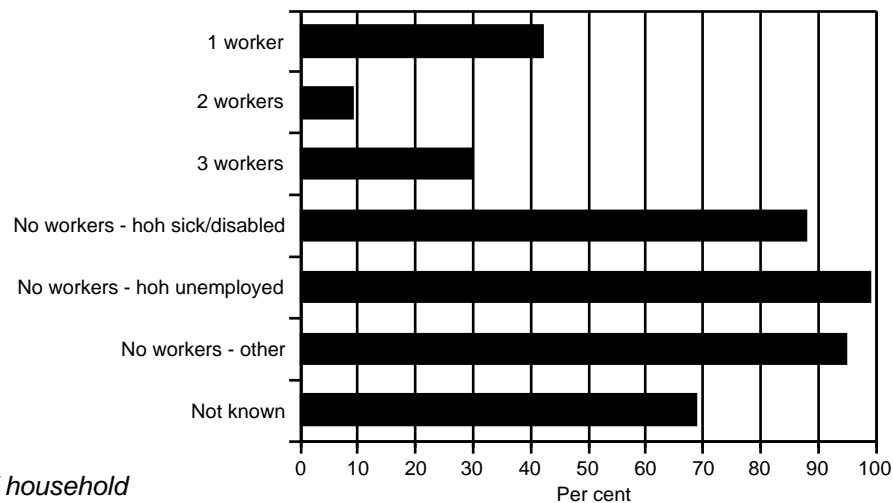
Dependent children

5.53 As shown in Table 5.3 above, dependent children (those aged under 16 and 16-18 year olds in full-time education) face an above-average risk of living in households with incomes in the bottom 30 per cent. According to the CHS-based estimates, the risk ratio for dependent children is 38 per cent compared to 22 per cent for all adults.

5.54 Table 5.5 presents the results for the main family type and economic status variables. Additional variables are profiled in Table E.2 of Appendix E. As with all individuals, the variations in risk of a low

income vary in the expected fashion. Thus, for dependent children, family type is clearly an important influence as those living in lone parent families face a considerably higher risk than children living in couples (Table 5.5).

**Figure 5.8 Children living in bottom 30 per cent
Risk ratios by number of workers in household**



Note: hoh—had of household

Source: CHS

5.55 The results also show that the employment status of the family strongly affects low income risks. This is also true for the employment status of the household. As illustrated in Figure 5.9, children living in a household where no-one is in work face much higher risks of being in a low income position compared to those where one or more adults have a job. The contrast is especially pronounced by comparison with households with two workers, where the risk of low income is estimated at one in ten (Figure 5.8).

5.56 One implication of Figure 5.8 is that the proportion of children living in a household without paid work is likely to be a good proxy indicator of the risk of being in a low income. As we note below, there is an absence of trend data on the incidence of low incomes in Northern Ireland, so that proxy or surrogate indicators are required.

5.57 A second important point to note from the employment status of the household is that the concentration of low incomes is highest (29 per cent) in those households where only one adult has a job (Table E.2). This is interesting because it points to the issue of low pay as a factor

to be considered in a poverty indicators framework. This in turn guards against an over-emphasis on the incidence of workless households.

5.58 The additional analyses in Table E.2 also highlight a number of other relevant features of the incidence of children living in low income households, including the higher risk for children living in families where the head is aged 29 or under (64 per cent) and children in public rented accommodation (83 per cent). These patterns are again consistent with expectations from analyses such as HBAI.

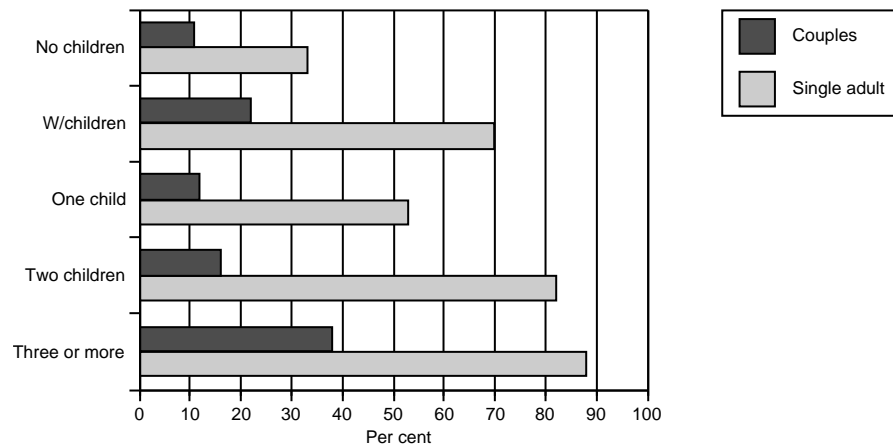
Table 5.6 Working-age adults living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ² <i>'000s</i>	Risk ratio ³ <i>Per cent</i>	Concentration ratio ⁴ <i>Per cent</i>	<i>Per cent</i>
All individuals	269	26	100	100
Gender				
All women	141	29	52	48
All men	128	24	48	52
Family type (benefit unit)				
Couple with children	98	22	36	44
Couple without children	26	11	10	22
Single with children	51	71	19	7
Single without children	94	34	35	27
Economic status (benefit unit)				
Self employed	26	18	10	14
Single/couple all in full time work	30	10	11	29
Couple, one in full time work, one in part time work	9	6	3	14
Couple, one in full time work, one not working	24	20	9	12
One or more in part time work	37	48	14	8
Head or spouse aged 60 or over	9	32	3	3
Head or spouse unemployed	31	79	12	4
Other	85	65	32	13
Not known	17	41	6	4
Economic status of adults in family				
Working full-time	89	13	33	69
Working part-time	37	48	14	8
Not working	125	63	46	19
Not known	17	41	6	4

Notes:

¹⁻⁵ See Table 5.3.

**Figure 5.9 Working-age adults in bottom 30%
Risk ratios by family type**



Source: CHS.

Working-age adults

5.59 The main results for working-age adults living in the bottom 30 per cent of the income distribution are presented in Table 5.6. Additional profiles for selected other variables provided by CSU can be found in Table E.3, Appendix E.

5.60 As for all individuals and dependent children, the pattern of risk ratios across different socio-economic and demographic variables is broadly in line with expectations. As with HBAI, women are more likely to be in a low income household than are men. Similarly, the employment status of the family and household again comes through strongly. Families in which no adults are working have a risk ratio of 63 per cent compared to just 13 per cent for a family with one or more adults working full-time. Families with one or more part-time workers only also exhibit an above-average risk ratio (48 per cent). With a concentration ratio of 14 per cent, these families account for a minority of those in a low income household. But this again serves to highlight issues of job quality in addition to the absence of paid work.

5.61 A second important point highlighted by the profile of working-age adults is that single adults with children are especially likely to be in a low-income household regardless of the number of children in the household (Figure 5.9). Lone parents with 1-2 children are four times more likely to be in a low income household than are couples with 1-2 children.

5.62 These contrasts point to the constraining effect of lone parenthood on accessing paid work, but also serve to highlight the need to consider issues such as labour market participation in addition to more

5.65 A final point to make is that, clearly, pensioners represent one group where the themes of employment and unemployment are of little relevance. Only two per cent of adults in pensioner families are in paid work (Table E.4). Their needs are obviously much more around other key policy areas such as health and well-being (three in four reported a longstanding illness/disability) and housing.

Table 5.8 Individuals living in households in the bottom 30 per cent of gross household income, based on CHS data: Risk ratios by NUTS III region of residence

	All individuals %	Children %	Working-age adults %	Pensioners %
Belfast	38	52	36	25
Outer Belfast	17	20	13	26
East of NI	26	33	22	37
North of NI	34	40	32	35
West & South of NI	40	48	35	42

Source: CHS

Location

5.66 The final issue to consider in presenting a CHS-based profile of individuals on low income is that of location. This has long been a central element in New TSN and its predecessor, particularly with the emphasis that has been placed on spatial targeting using indicators of multiple disadvantage.

5.67 Regarding the CHS results, there are two points to make. First, the broad regional pattern (which is as much as can be illustrated with the CHS, since the sample sizes do not permit low-income profiles by, for example, District Council) in low-income risk ratios is broadly consistent with expectations. Thus, areas west of the Bann tend to exhibit the highest risk ratios, though Belfast also tends to be above average (Table 5.8. See also Tables E.1 to E.4 for concentration ratios).

5.68 Second, it would have been useful to have had available on the CHS an indicator for the respondent's area of residence expressed in terms

of the Noble decile ranking of the ward in which the respondent lives²¹. Clearly, due to sample size and confidentiality constraints, ward-level identifiers in themselves are of little relevance to a database such as the CHS. But it would have been of interest to have prepared a chart along the lines of Figure 2.3, based on risk and concentration ratios by Noble decile for people in the bottom 30 per cent of the income distribution. This would serve to further illustrate the trade-off implicit in a spatially-based indicator between targeting resources on areas where the need is most highly concentrated and perhaps missing the target by omitting people in need outside the relevant spatial concentrations. As noted above, receipt of benefits is an imperfect proxy for low income, and there may be geographical variations in uptake. Further, as was noted in Section 2 above, there are variations between groups in the extent to which they are spatially concentrated or dispersed. For example, Table 5.8 shows that the risk ratio for pensioners is more evenly distributed than for children or working-age adults.

Trends

- 5.69 This Section concludes by considering the issue of indicators for trends in the risk of low income in Northern Ireland. The CHS database is clearly not suitable for this task. This is because the CHS data are useful in profiling variations within and across groups with respect to the bottom 30 per cent. But at the level of the population as a whole, there is always a bottom 30 per cent regardless of shifts in relative average income levels over time.
- 5.70 The non-availability in a suitable form of the existing FES database also means that there does not exist a time series for tracking the trend in the incidence of persons below some threshold of the average. The possibility of using NI FES data from the HBAI data series that pre-date the introduction of the FRS was discussed with Analytical Services Division in DSS. However, during the period when the FES served as the data source for HBAI only a sub-set of the NI FES was incorporated into the UK FES. DSS investigated the possibility of providing a NI FES-based series, but the results were found to be too variable and were considered unreliable due to inadequate sample size.

5.71 The only recourse in that context is to rely on proxy indicators, as was the case with the assessment of the baseline position with respect to the percentage below half average income. Two sets of indicators are presented:

- Labour market indicators.
- Receipt of benefit.

Labour market indicators

5.72 There are obviously a wide range of labour market indicators available from data sources such as the LFS and the New Earnings Survey. Reflecting the foregoing profile, we concentrate on the employment status of the household and the trend in relative pay (Figures 5.10 to 5.12).

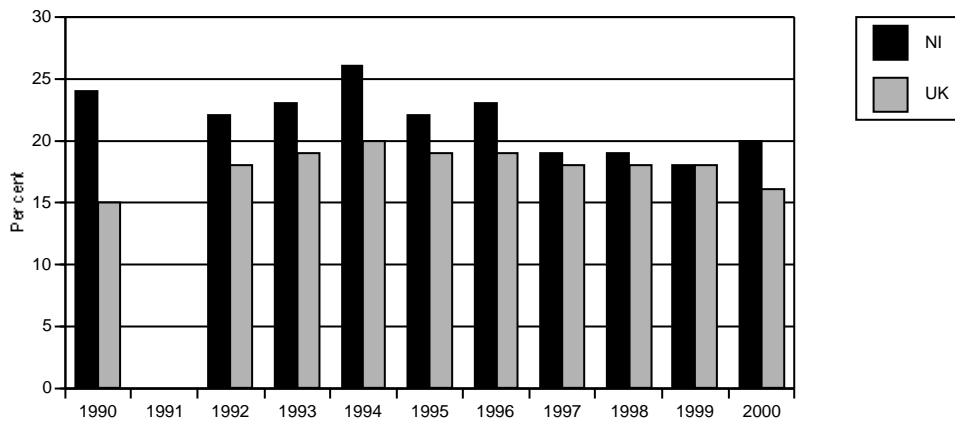
5.73 Figure 5.10 shows the trend in the proportion of children living in households without work. The rationale for this is clear from the foregoing profile of dependent children in low income households. As can be seen, the gap between NI and the rest of the UK narrowed in the early-1990s as the UK went into a recession that was largely avoided in Northern Ireland. Since then the gap has tended to remain relatively constant against a backdrop of a gentle decline in the proportion of children living in households without work, though this picture does vary somewhat from any one year to the next (e.g. 1999 to 2000).

5.74 Figure 5.11 shows a broadly similar pattern in the trend in the number of workless households.

5.75 Figure 5.12 shows very little narrowing, and some slight divergence, in average weekly earnings in Northern Ireland as a percentage of Great Britain.

5.76 Overall, the trends in the foregoing labour market indicators would not suggest that the incidence of low incomes in Northern Ireland has deviated greatly from the national trend (see Figure 3.3) over the last five years.

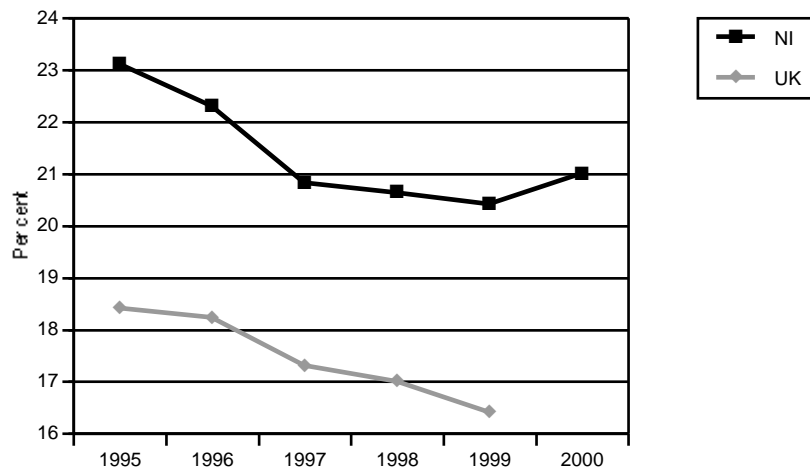
Figure 5.10 Proportion of children living in workless households



Notes: OFA Indicator 1, Howarth et al Indicator 8.

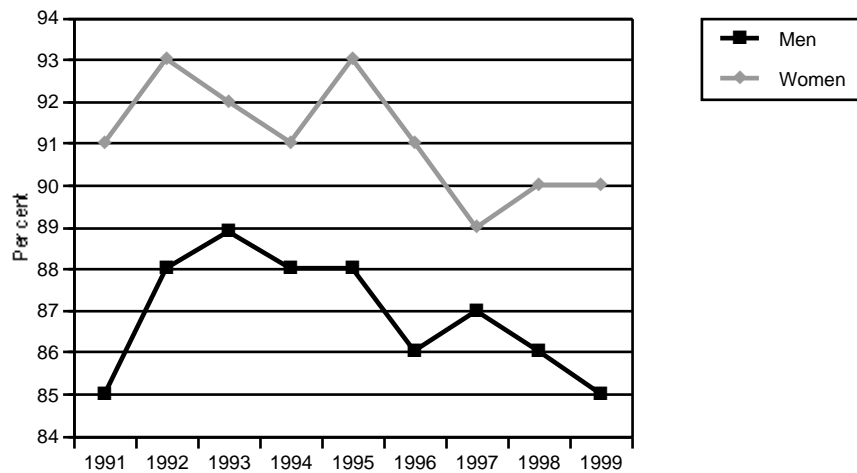
Source: Labour Force Survey.

Figure 5.11 Workless households: Working age



Source: Labour Force Survey.

Figure 5.12 NI Average gross weekly earnings as % of GB



Source: New Earnings Survey.

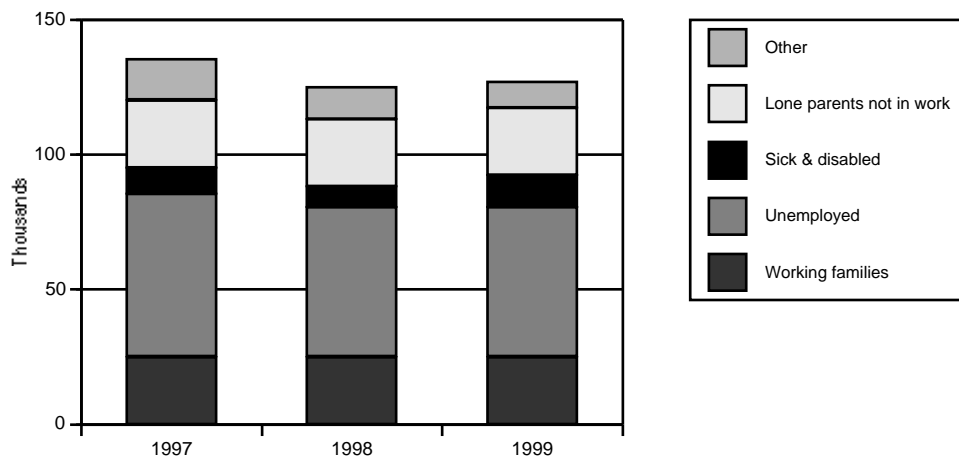
Receipt of Benefits

- 5.77 As discussed above, receipt of benefits is an imperfect proxy for the incidence or risk of low income. Nonetheless, this is a very useful indicator to consider because:
- Persons in receipt of benefit exhibit an above average risk of low income. This is clear both from the discussion of Table 5.4 above and the various analyses in HBAI.
 - As in Great Britain, a considerable volume of administrative data exists in Northern Ireland for tracking trends over time.
- 5.78 The NI data is not as well developed as in GB. For example, there is not as yet a NI version of the Cross Benefit Analyses used by Howarth *et al* and also OFA in their assessments of low income trends. However, DSD were able to supply the information required to construct the indicators shown in Figure 5.13 to 5.15.
- 5.79 Figure 5.13 shows the trend in the number of people on a means-tested benefit, analysed by client group. The overall number has been relatively flat, not too dissimilar to the situation in Great Britain where there was a slight fall from 1997 to 1998 followed by stability from 1998 to 1999. The composition by client group has also been relatively stable.
- 5.80 Figure 5.14 shows the recent trend in the number of people on a key or main benefit. This indicator includes incapacity benefit and is less well correlated with low income than its means-tested counterpart. As with the means-tested benefits, the trend is again relatively flat.
- 5.81 Figure 5.15 shows the recent trend in long-term recipients of a means-tested benefit. This indicator features in both the Howarth and OFA frameworks. It serves as a proxy indicator for the persistence of low income. The main point of note is the steady downward trend in the number of long-term claimants of benefit since 1996. This has been driven by a sharp fall in the number of people claiming Job-seekers Allowance for two years or more. Both of these NI trends are broadly comparable to Great Britain, where the level also peaked in 1996. This

is a useful indicator, but would need to be supplemented by information on the destinations of those leaving long-term means-tested benefit and returns to benefit. For example, to what extent does the downward trend reflect benefit-switching or perhaps a temporary move into employment?

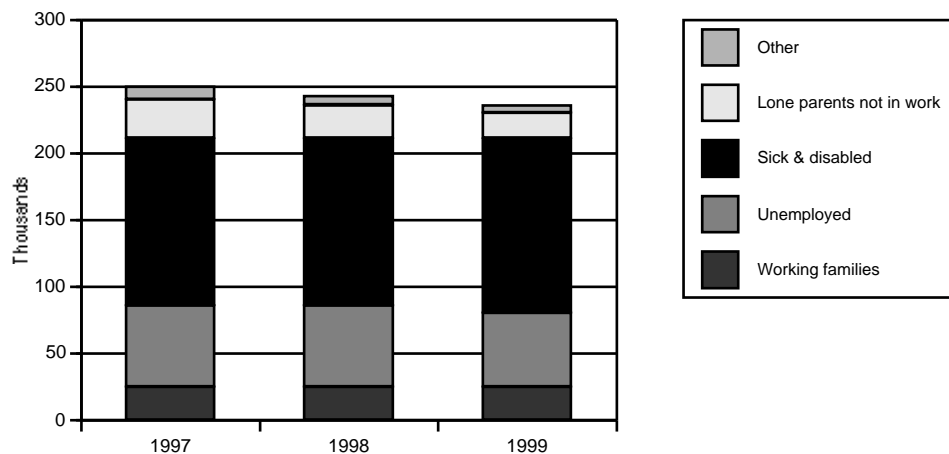
5.82 Overall, the foregoing indicators tend to support the conclusions drawn from the labour market indicators, that is, the NI trend in the incidence of relatively low incomes is not likely to have diverged substantially from Great Britain.

Figure 5.13 Working-age people on a means tested benefit



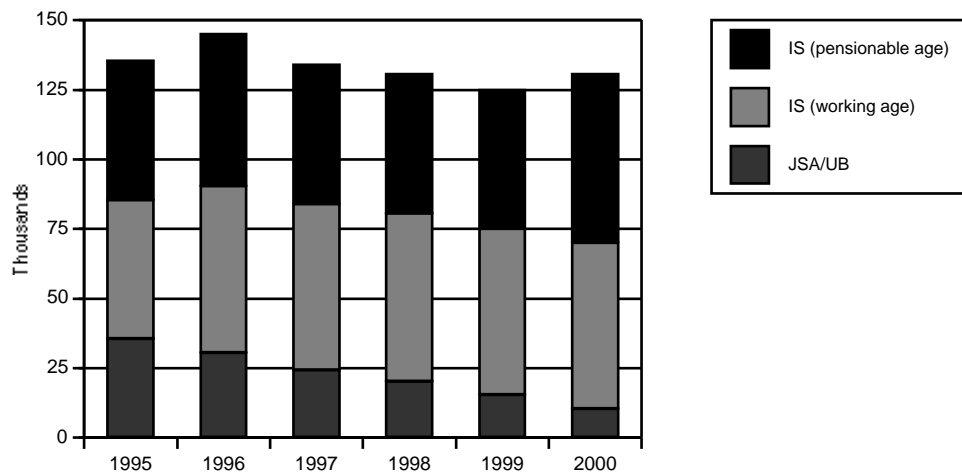
Note: Benefits include IS, JSA, DWA, FAMC
Source: DSD

Figure 5.14 Working age people on a main benefit, 1997-1999



Note: Main benefits include IS, JSA, INCAP, SDA, DLA, DWA, FAMC
Source: DSD

Figure 5.15 Long-term recipients of benefit
Persons on JSA or IS for over two years



Figures for 1995 and 1996 are for Unemployment Benefit, before the introduction of JSA in October 1996. These figures should be interpreted with caution due to the overlap of UB and IS.

Source: DSD

Conclusions

5.83 This Section has considered the establishment of a baseline picture of people on low incomes under three headings:

- Measurement and identification.
- Profile of socio-economic and demographic characteristics of people on low incomes.
- Trends in the number of people on low income and persistence of low income.

5.84 With regard to measurement and identification, the following are the key findings:

- For a number of reasons, it was not possible to use the Family Expenditure Survey to provide a direct estimate of the proportion of the NI population below various fractions of GB mean income, for comparison with the HBAI series. However, so long as the NI FRS sample size is sufficient, so that it is not necessary to pool survey years, such estimates will be available in 2004 from the NI FRS.

- In light of the above, it is necessary in the interim period to rely on proxy indicators. In Great Britain the proportion below half the mean was 25 per cent in 1998/99. Considering a range of proxy indicators, it is concluded that the proportion below the GB mean in Northern Ireland is in the region of 27-30 per cent.

5.85 The key findings in respect of a baseline profile of the characteristics of people on low incomes are as follows:

- It has proven feasible to use the household income data from the Continuous Household Survey to prepare a socio-economic and demographic profile of people in the bottom 30 per cent of the NI income distribution.
- Though they are not directly comparable, the results from using the CHS are broadly consistent with expectations drawn from the HBAI profile of people on a low income in Great Britain.

5.86 With regard to the assessment of trends in the number of people on a low income in Northern Ireland, the non-availability of a data series from the FES meant that, again, reliance had to be placed on proxy indicators. Reflecting the socio-economic profile of people in the bottom 30 per cent of the NI income distribution, two sets of indicators were identified:

- Labour market indicators.
- Trends in the receipt of benefits.

5.87 Three indicators were presented under each of the above headings. The results suggest that, in the latter half of the 1990s, the NI trend in the incidence and persistence of relatively low incomes is not likely to have diverged substantially from those observed in Great Britain, where the proportion below half the mean has been relatively stable.

- ¹ Defined as a level of household income under 140 per cent of the relevant supplementary benefit scales.
- ² McGregor and McKee used expenditure as a proxy measure of the risk of poverty. The choice of income or expenditure to measure lack of resources is considered later in this report.
- ³ In 1992, the US poverty income threshold for a two adult/two-child family was \$14,228. The World Bank uses a minimum threshold of a dollar a day for poverty assessment in developing countries.
- ⁴ Gordon *et al* (2000) point out that "The problem with using benefit levels as income thresholds is that when they are increased in real terms so are the numbers defined as poor".
- ⁵ The McClements scales were derived in 1977 from an analysis of expenditure data. Other approaches have been employed by different researchers. For example, Borooah *et al* (1991) derived an equivalence scale from rates paid by the social security system to different family types. In practice, these rates did not greatly differ from McClements (Nolan and Whelan, 1996). Hills (1998) suggests that the HBAI scales may be mis-specified as there is some research evidence indicating that the assumption that children have a proportionate, rather than fixed, effect could be misplaced. Overall, there is considerable uncertainty regarding the appropriate relativities to be applied to different family types and age groups. Thus, in practice, researchers tend to test the effects of different equivalence scales by means of sensitivity analysis (e.g. Nolan and Whelan, 1996).
- ⁶ The full cycle from commencement of the survey fieldwork to publication of results takes a little over two years. The FRS fieldwork is spread over the period from March to April of the following year. The data are then subjected to extensive validation and imputation procedures before being ready for analysis. Once the data are passed to the HBAI Section a further round of processing is required for the production of income distribution statistics. For example, the 1998/99 HBAI series were published in July 2000.
- ⁷ That is, the poverty gap measure fails Sen's Weak Transfer axiom for a poverty index; a regressive transfer of income between the poor should, all other things equal, result in an increase in poverty. The Headcount Ratio also fails this axiom, as well as Sen's Monotonicity axiom which requires that a fall in the income of someone below the poverty line should lead to an increase in measured poverty.
- ⁸ A relative income line is not, however, a pure measure of inequality. It is, in principle, possible to have an income distribution where no-one is below, say, 50 per cent of the mean. This would imply a flatter distribution of income compared to one where a non-zero fraction is below the line. Pure measures of inequality are those based on deciles or quintiles of the income distribution e.g. the ratio of the median income of those in the top decile to those in the bottom ten per cent of the distribution. Unless everyone has the same income, there will always be a bottom ten per cent, and so on.
- ⁹ It should, however, be noted that the consumption is used in these studies because it is felt to be a more reliable measure of resources, rather than on the basis of the conceptual issues identified in Figure 4.3. Both studies used the FES, which measures current weekly income. But over the course of a year income may fluctuate due, for example, to seasonal factors, while consumption is maintained on a more even level so that a snapshot at any one point in time may over-state or under-state current annual income while providing a more accurate picture of annual sustainable consumption.

¹⁰ Hills goes on to state that:

One would be worried about a low-income family even if they were spending a great deal, supported by rapidly rising debts. On the other hand, one would not be so concerned about a high income miser who spends little but saves a lot. (Hills, 1998: 39).

¹¹ Piachaud (1987) asserted that an income threshold is intrinsically implausible, arguing that reality is better described as a continuum from great wealth to chronic poverty. This is a fundamental difference in approach and conceptualisation.

¹² Income is also indirectly present as one of the variables used for statistical analysis of reliability of the items in the list of socially perceived necessities.

¹³ The identification of 'poor' individuals living in households with an equivalised income in the fourth or fifth quintile raises a host of other questions. For example, equivalencing assumes that household income is equally shared, but this may be incorrect, so that there are variations in deprivation within a household. Or an individual household may have taken on short-term financial responsibilities (e.g. home improvements) that result in enforced lack of what it (and society) would otherwise regard as necessities.

¹⁴ See Section 3 above for a discussion of equivalised income.

¹⁵ This is a single adult or a couple, together with any dependent children. An adult living in the same household as his or her parents, for example, is a separate benefit unit from the parents and would be assessed separately for Income Support or Family Credit. The FRS definition of a household is a single person or group of people living at the same address as their only or main residence, who either share one meal a day together or share the living accommodation (i.e. living room). A household will consist of one or more benefit units.

¹⁶ Another example is the Swedish approach exemplified by Erikson (1993), which looks at the incidence of a range of conditions across different socioeconomic groups. The conditions are classified as non-problematic or problematic based on expert assessment.

¹⁷ The specification of HPI-2 seeks to reflect deprivation in four dimensions:

- A long and healthy life – vulnerability to death at a relatively early age, as measured by the probability of not surviving to age 60.
- Knowledge – exclusion from the world of reading and communications, as measured by the percentage of adults (aged 16-65) lacking functional literacy skills.
- A decent standard of living – as measured by the percentage of people living below the income poverty line (50 per cent of the median disposable household income).
- Social exclusion – as measured by the rate of long-term unemployment (12 months or more).

The formula for calculating HPI-2 is as follows:

$$HPI - 2 = \frac{1}{4} (P_1^\alpha + P_2^\alpha + P_3^\alpha + P_4^\alpha)^{\frac{1}{\alpha}}$$

where,

P_1 is the probability of not surviving to age 60 (times 100).

P_2 is the proportion of adults lacking functional literacy skills.

P_3 is the per cent of the population below 50 per cent of median household disposable income.

P_4 is the long-term (12 months+) unemployment rate (per cent).

In the HPI-2 formula, as alpha rises, greater weight is given to the dimension in which there is the most deprivation. Thus, as alpha increases towards infinity, the HPI will tend toward the value of the dimension in which deprivation is greatest. A detailed analysis of the HPI's mathematical formulation is contained in Anand and Sen (1997).

- ¹⁸ The PSE study used an equivalised income measure that was developed by Jonathan Bradshaw and Sue Middleton in conjunction with the Office for National Statistics. This scale is different to the standard McClements equivalence scale, which was felt by the PSE authors to be inappropriate to their purposes (the measurement of poverty) on the ground that "it does not assign sufficient weight to children, particularly young children" (Gordon *et al*, page 86).

The equivalised income scale used in the PSE study was:

Type of household member	Equivalence value
Head of household	0.70
Partner	0.30
Each additional adult (anyone over 16)	0.45
Add for first child	0.35
Add for each additional child	0.30
If head of household is a lone parent, add	0.10

Source: Gordon et al, 2000, Poverty and Social Exclusion in Britain. Yorks: Joseph Rowntree Foundation. Page 87.

The scale was applied as follows (Gordon *et al*, page 87):

- The values for each household member were added together to give the total equivalence value for that household. This number was then divided into **the gross income** for that household.
- Households were then grouped into quintiles on the basis of their equivalised gross incomes. Each household member is then assigned the equivalised income value for the household as a whole.

- ¹⁹ There are at least two alternative approaches. First, for households in the first 29 income bands proceed as in the discussion in the main text. For households in the 30th income band, seek to refine the household income estimate by adding additional household income bands derived from the responses made by individual household members regarding earned income, benefits and other income sources. For example, suppose a household has two members working and both report earnings in the 25th income band (£19,810-£20,860), and that this earned income is their only source of income. This household's gross income will fall in the 30th household income band (£31,290+), but we will know from the individual data that the household's income is actually in the range £39,620-£41,720.

As an extension of the above, it may be feasible to derive an entirely new set of household income bands built up from the individual-level data reported for earned income, benefits, and other income. Modelling individual's earned income could be used to further refine this method.

- ²⁰ Except in the highly unlikely situation of a perfectly equal distribution of income.

- ²¹ The CHS currently has a ward identifier, but these are on the 1992 base, whereas it is the 1984 wards that are used for Noble. This could be rectified by using postcodes to identify the respondent's 1984-based ward of residence and then deriving a variable that indicates the decile of Noble in which the ward is located.

6 Key Policy Areas

Introduction

6.1 The primary objectives of this Section are as follows:

- To propose poverty-relevant indicators across key policy areas for a New TSN poverty indicators framework.
- To assess the possibility of establishing a baseline picture of poverty across key policy areas with respect to the proposed indicators.

6.2 The Section is structured as follows. It commences with a discussion of general considerations for meeting the above objectives, including choice of key policy areas, criteria for indicator selection and classes of indicators to be included. This is followed by proposals for indicators in the specified key policy areas. The concluding remarks summarise the discussion.

General Considerations

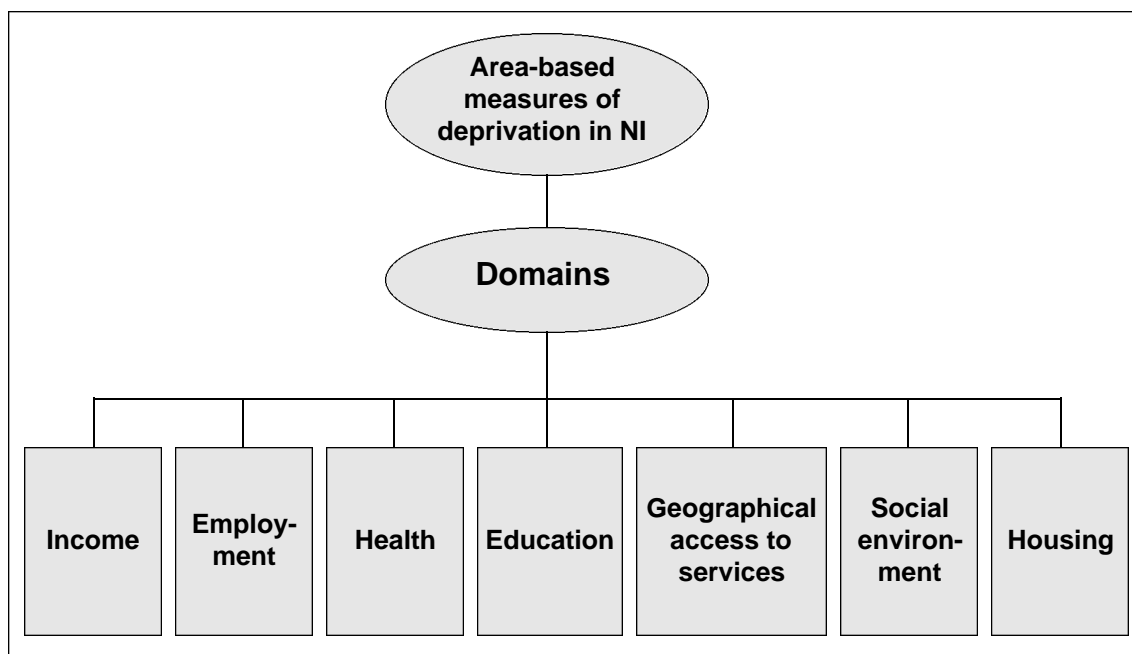
Key policy areas

6.3 The first issue to be addressed in meeting the above objectives is to identify the key policy areas for which indicators are to be proposed. There are a number of options for identifying a set of key policy areas, as follows:

- Specific to the NI Government Departments.
- Derived from the Howarth *et al* or *Opportunity for All* thematic areas.
- Following the domains of the area-based NI Measures of Deprivation (Figure 6.1).

6.4 Our preference is for the last of the above options, for the following reasons.

Figure 6.1 Domains of the area-based NI Measures of Deprivation



- 6.5 First, the domains of the NI Measures of Deprivation provide a framework for facilitating spatial targeting of actions by Departments. The use of these domains therefore directly addresses one of the objectives specified for a New TSN poverty indicators framework, that is, *to complement the NI Measures of Deprivation* (see Section 2, Figure 2.6).
- 6.6 It is also possible to achieve complementarity with the national context, since the domains of the NI Measures of Deprivation overlap to a considerable degree with the thematic areas framing both the Howarth *et al* and *Opportunity for All* (compare Figure 6.1 with Figures 4.1 and 4.3).
- 6.7 Second, as discussed in Section 2 above, New TSN is intended to have a broad applicability, within the context of the three ‘legs’ of the initiative. These three legs are encompassed within the domains of the NI Measures of Deprivation, as follows:
- Unemployment and employability.
 - Needs and inequalities in other areas, such as health, education, housing and access to services.
 - Tackling multiple disadvantage by promoting social inclusion.

- 6.8 In the NI Measures of Deprivation, tackling multiple disadvantage is addressed through the weighted overall summary scores across key policy areas. From the perspective of groups and people, poverty and low income serve as a general indicator of social disadvantage.
- 6.9 Third, while New TSN is being implemented on a Departmental basis, nonetheless individual Departments may contribute, to varying degrees, across each of the three ‘legs’ of New TSN (Figure 6.2, based on a review of Departmental New TSN Action Plans, summarised in Appendix F). It is therefore more relevant to the objectives of this study to specify an indicators framework that directly relates to the three ‘legs’ of New TSN rather than one that is dictated by Departmental ‘line’ responsibilities. This will better enable us to meet the objective of *enhancing understanding of social disadvantage and poverty in NI, globally and across key policy areas*.

Criteria

- 6.10 The second key issue to be addressed in meeting the objectives of this Section is to set down criteria for the selection of indicators. A number of relevant criteria need to be applied, both mandatory and desirable.

Figure 6.2 New TSN and NI Departments: Key policy areas

Policy areas:	Departments:								
	DEL	DETI	DE	DHSSPS	DSD	DARD	DCAL	DoE	DRD
Low income					■				
Employability & unemployment	■	■	■			■	■	■	■
Health and wellbeing				■					
Education, skills and training	■		■				■		
Geographical access to services	■			■	■		■	■	■
Social environment					■	■	■	■	
Housing					■				

Note: Variations in shading indicate degree of relevance of Department’s activities to the various ‘legs’ of New TSN; the darker the shading, the greater the relevance.

- 6.11 The first and most important criterion is **relevance**. Indicators have to reflect some dimension or aspect of poverty, including deprivation due to lack of resources. Relevance can be defined in terms of functionings or capabilities (see Section 4 above). Simply put, the former refers to a state or condition that is directly associated with poverty (e.g. basic deprivation in the sphere of consumption) or that is correlated with poverty (e.g. there are social class and income gradients in morbidity or the incidence of ill-health; or, people may live in poor housing because they have inadequate resources).
- 6.12 Capabilities refer to attributes, skills or resources that people need in order to help them escape from poverty or to reduce the risk of falling into poverty. For example, performance in, or access to, the jobs market is clearly relevant to the risk of income poverty. A person's employability (indicated by qualifications, work experience, literacy and numeracy skills, etc) is therefore an important consideration from a poverty perspective.
- 6.13 The second key criterion is **feasibility**. An indicator must be capable of a valid and reliable definition and it must be possible to obtain a robust measure from available data, or data that can reasonably be collected.
- 6.14 These are mandatory criteria; they must be satisfied. A number of other criteria can be identified as desirable rather than mandatory.
- 6.15 **Comparability**. It should be possible to compare the experience in Northern Ireland with, for example, other areas of the UK. This is important in benchmarking the level of need in Northern Ireland and contributing to and influencing national policy debates.
- 6.16 **Trend analysis**. It is desirable to have indicators that enable us to track changes in need over some period of time. Unlike the Howarth *et al* approach, however, we do not require that indicators be available on an annual basis. While it is useful to have annual data, there are other factors to consider. First, Northern Ireland is a relatively small region. Particularly in a situation where the interest is in the 'tail' of a distribution, sample sizes may demand that annual surveys be pooled. We have already discussed this in the context of the FES. Second, it is not desirable to impose such a constraint on the specification of an

indicator set for key policy areas. One of the primary objectives that we are seeking to meet is to *enhance understanding of disadvantage and poverty in Northern Ireland*. But confining the indicator set to annual data would be too restrictive. This would, for example, lead to the omission of important data sources such as the NI Health and Wellbeing Survey and the NI House Condition Survey. These are regular, but not annual surveys.

- 6.17 **Profiling.** In order to enhance understanding, it is desirable that indicators should be capable of being profiled according to relevant groups and areas
- 6.18 **Parsimony.** The chosen set of indicators should be the minimum necessary to meet the requirements of the objectives framework set out in Figure 2.6 above. There are three reasons for specifying this criterion:
- Cost-effectiveness. Resources are always limited.
 - Balance. A balance needs to be achieved between the number of indicators specified and the effort that must be devoted to understanding those indicators. The indicators framework should not become an end in itself.
 - Focus. The indicators should facilitate a focus on the most important issues rather than seeking to cover all possible bases. This is the best way of complementing Departmental efforts, which should be concerned with more detailed identification of needs.

Classes of indicators

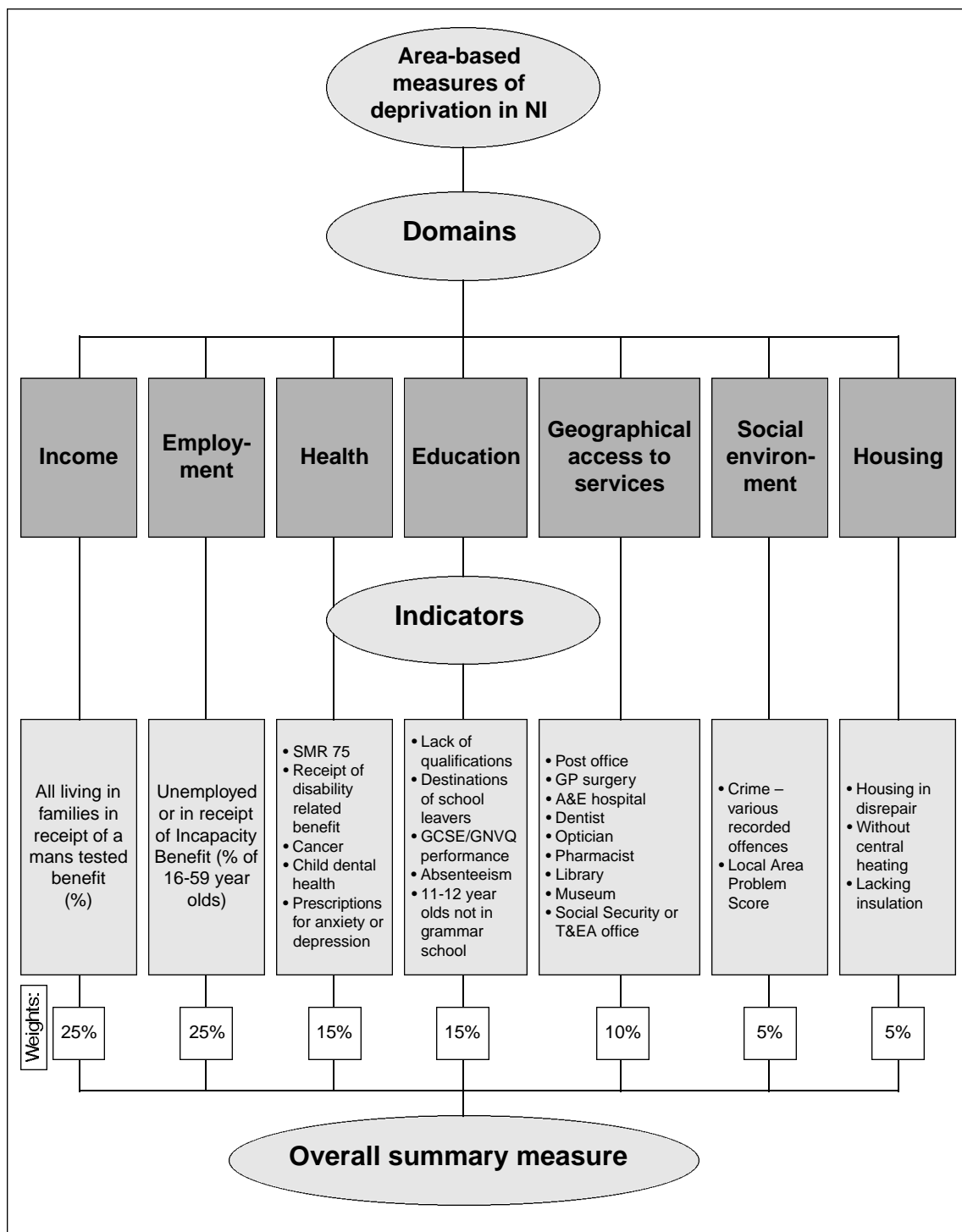
- 6.19 Indicators can be classified under a variety of different headings, including:
- Indicators for identification of objective need and social disadvantage. These are important in determining the rationale for a policy intervention and consideration of primary objectives.

- Input and operational indicators. In a funded programme, these will typically describe applications and approvals and use and allocation of financial resources.
- Output and results indicators. These describe the activities of a policy or programme. For example, in a training programme, an output indicator would be the number of places provided or people who received training. A results indicator might be the number of people achieving accreditation.
- Outcome and impact indicators. Outcomes refer to the sustainable positive effects of the policy or programme beyond immediate participation, for example, participants on training projects who successfully entered employment. Impacts refer to the wider effects of the policy or programme, for example, on job creation or local area unemployment rates. These should generally bear a clear relationship to the indicators of need or social disadvantage that provided the rationale for the policy in the first place.
- Performance indicators. These are typically defined in respect of outputs, results, and/or outcomes. They may be constructed to help in setting targets for outputs or results or expected achievements for outcomes.

6.20 Reflecting the objectives as set out in Figure 2.6 above, the emphasis in respect of key policy areas for a New TSN poverty indicators framework will be on indicators of need or social disadvantage. Partly, this is because such indicators are critical in enhancing understanding of social disadvantage and poverty in NI, identifying priorities and providing a focus for public debate.

6.21 Also, the implementation of New TSN is on a Departmental basis. Thus, Departments have set out their proposed actions in the form of New TSN Action Plans (see Appendix F). It is therefore reasonable to expect that Departments will be responsible for identifying and collecting information on relevant indicators that fall within the remit of their specific Departmental responsibilities. Thus, for example, it is not proposed to specify performance indicators.

Figure 6.3 Indicators used in the NI Measures of Deprivation



Indicators

6.22 A simple and expedient approach to defining a set of indicators by key policy area would be to adopt the indicators used to compute the area-based NI Measures of Deprivation. These are listed by domain in Figure 6.3.

- 6.23 Certainly, it will be the case that some of these component indicators will be useful and relevant to a poverty indicators framework. We have, for example, already assessed receipt of benefit in the context of indicating trends in the number of people on a low income. But it would not be appropriate simply to adopt all of the indicators in the NI Measures of Deprivation. There are a number of reasons for this.
- 6.24 First, this would be too restrictive. The indicators in the NI Measures of Deprivation were chosen at least partly on the pragmatic ground that administrative or other data were available at an appropriate level of **spatial** detail. This should not be a constraint on a poverty indicators framework. Indeed, one of the benefits of specifying a poverty indicators framework that is focused on groups of people is that it then becomes possible to make use of a number of survey data sources (e.g. the CHS) that could not meet the requirements of the NI Measures of Deprivation in respect of spatial detail.
- 6.25 A second reason is that many of the indicators in the NI Measures of Deprivation are themselves proxy measures of need. Principally, this reflects the reliance placed on administrative data. For example, receipt of benefit is itself a proxy indicator for the incidence of low income.
- 6.26 A second approach would be to specify a set of key policy indicators based on those Howarth *et al* and/or OFA indicators for which NI information is available (see Appendix D). These indicator frameworks undoubtedly provide a useful starting-point for the key policy areas. However, a mechanistic read-over from these two sources would not fully meet our objectives.
- 6.27 Primarily, this is because the Howarth *et al* and OFA indicator sets are concerned with indicators for social inclusion as well as poverty. There is, of course, a considerable degree of overlap between these two issues, but they are not entirely the same. For example, Bradshaw (2001) queries the use of school exclusions in the context of measuring poverty. There may be a need for a New TSN social inclusion indicators framework, but that is not the purpose of this study. Also, it should be noted that some indicators, especially in OFA, are more in

the nature of performance indicators, for example, the measures of educational performance in Sure Start areas.

6.28 Finally, though it shares many national policy concerns, New TSN is a specifically NI initiative. This will also need to be reflected in the assessment of proposed indicators.

6.29 The remainder of this Section proposes a number of indicators in respect of key policy areas corresponding to the domains of the area-based Measures of Deprivation in Northern Ireland.

Income

6.30 The specification of income indicators has been discussed at length in the preceding Section of this report. The implementation of the approach outlined in respect of income indicators is a necessary precursor to, and provides the bedrock for, indicators across key policy areas. In particular, the profiling of people on low incomes provides important information in assessing the relevance of indicators across key policy areas.

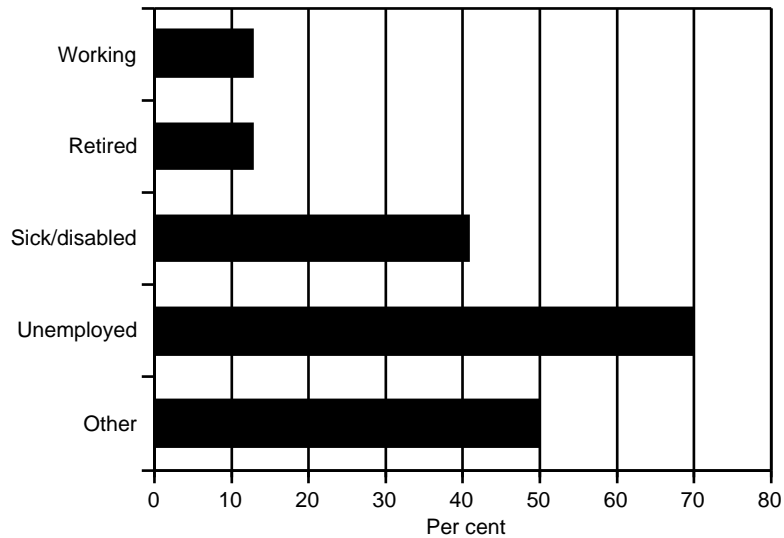
6.31 The main objective in Section 5 was to assess the possibility of preparing a baseline profile of people on low income. Thus, the profiles presented in Section 5 above represent a start, but more could be done, for example, to take advantage of the CHS modules in the sphere of health and well-being. The use of the CHS in the context of a poverty indicators framework could also be expended in an analytical direction, for example, by means of statistical models to explore the correlates of low income in Northern Ireland. To the extent that the work of filling out a poverty indicators framework has really only begun, the proposals made here should be viewed as preliminary and a basis for further consultation and discussion.

Employment and unemployment

6.32 Employment and unemployment are central concerns of New TSN. As illustrated in Figure 6.4, labour market status is also of considerable relevance from a poverty perspective. Profiling working-age adults by employment status, unemployed people clearly have the highest risk of

living in a low-income household, over five times the average rate for people in a job.

**Figure 6.4 Individuals living in households on low incomes
Working-age adults by employment status – risk ratios**



Source: CHS.

Unemployment

6.33 As set out in Table 6.1, three main indicators are proposed in respect of unemployment, that is:

- The overall level or rate of ILO unemployment¹.
- The duration of unemployment.
- The number of people wanting paid work.

6.34 For each indicator, Table 6.1 also sets out the main profiles of interest, relevant data sources and points of note, with particular reference to data collection.

6.35 The key points of interest from the perspective of a poverty profile are:

- The **trend**, both in terms of direction and by comparison with the overall national rate.

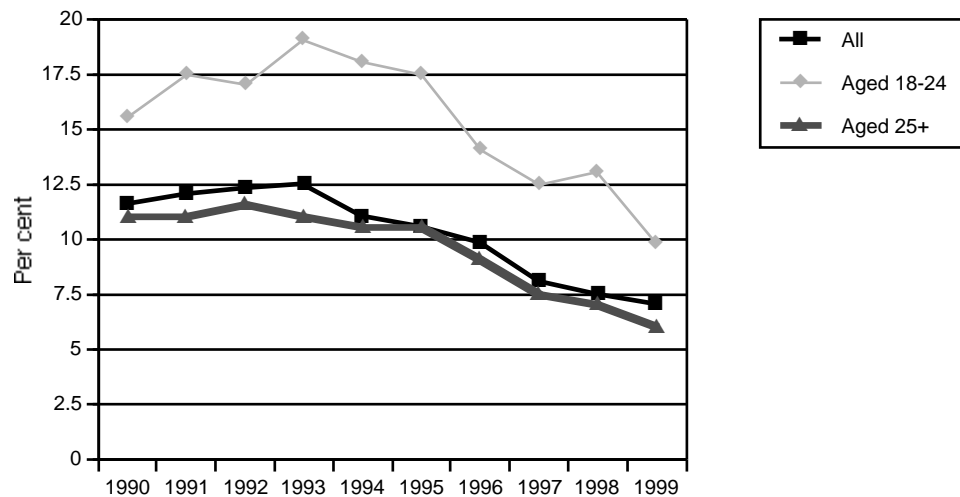
- The **profile**, that is, what are the salient characteristics of people experiencing unemployment.

Table 6.1 Unemployment

Indicator	Measures	Profiles	Data sources	Comment
1 ILO Unemployed	Level % of labour force	Age, gender, religion On a low income	LFS CHS	LFS explicitly oriented to labour market – trend analysis, comparability. CHS for low income relevance
2 Duration of unemployment				
(a) ILO unemployed 1 year+	% of labour force	Age, gender, religion On a low income	LFS CHS	See 1 above
(b) Cumulative long-term unemployment	1 year+ in last three years	Gender, age, location	DETI longitudinal database	Claimant count definition. Location available to ward level.
3 Individuals wanting paid work	Level, % of working-age population	Age, gender, religion On a low income	LFS CHS (but not currently defined)	See 1 above.

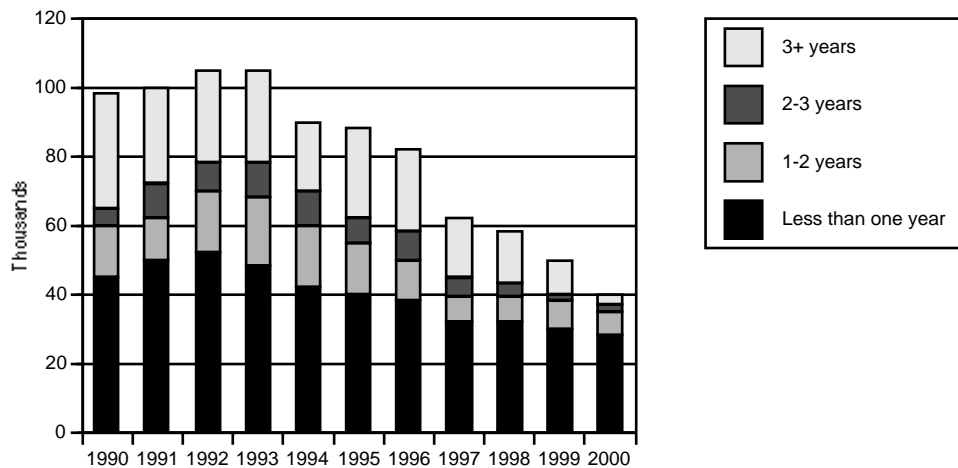
6.36 In most instances, the Labour Force Survey (LFS) is the key source of data. This is a well-established and large-scale quarterly survey specifically designed to measure labour market trends as well as providing background socio-economic and demographic characteristics of people according to their labour force status. Thus, for example, the LFS is the most reliable source of data for monitoring trends in unemployment rates by age (Figure 6.5) and duration (Figure 6.6). These are very important in the context of, for example, major policy initiatives such as the various New Deal programmes.

Figure 6.5 Unemployment by age group



Source: LFS.

Figure 6.6 ILO Unemployment by duration



Source: Labour Force Survey.

6.37 There are, however, three important limitations of the LFS. First, while it is a large survey in the context of Northern Ireland, nonetheless the ability to provide detailed profiles is necessarily limited by sample size constraints. For example, the analysis of duration by age or religion or highest qualification can be subject to this constraint. Sometimes, this can be dealt with by combining surveys for a number of years and taking an annual average.

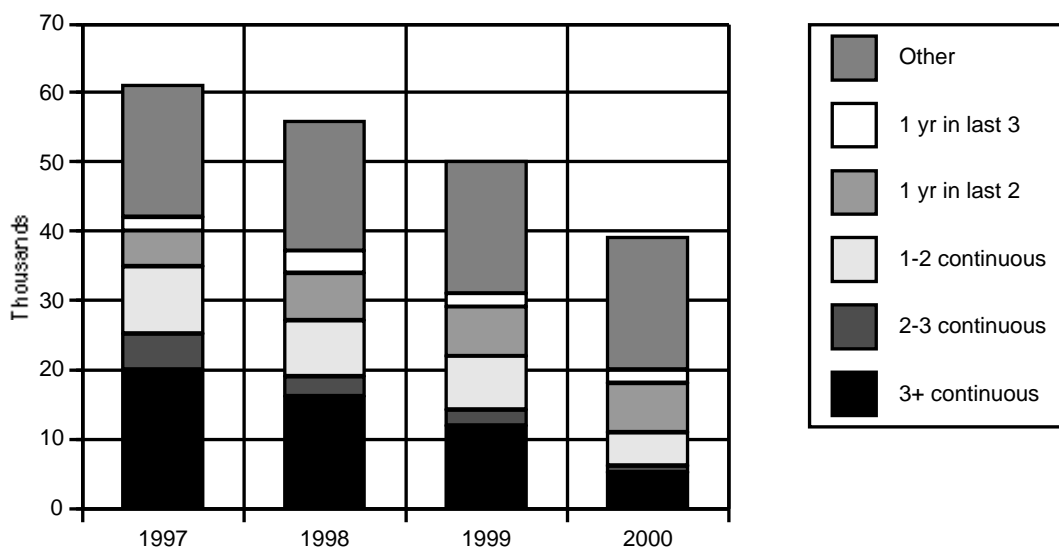
6.38 Second, the LFS is primarily focused on individuals and their experience of the labour market. Thus, it does not possess the same level of detail as the CHS in respect of households or families. In

particular, the LFS is not a source of household income data. This is the principal reason that the CHS has also been identified as a data source for profiling unemployed people.

6.39 As discussed in Section 5 above, the CHS can be used to identify low-income households. It is relevant in the present instance because the employment module in the CHS contains questions that can be used to identify unemployed people on an ILO basis, as well as the length of time that they have been out of work, but wanting work in their current period of unemployment.

6.40 Third, the LFS is a cross-sectional database rather than a panel survey, that is, it takes 'snapshots' of people's labour market position at specific points in time. It does not track these people over an extended time period². This is a limitation that is shared with the CHS. The absence of a longitudinal element restricts the extent to which the LFS or the CHS can provide insights into the relationship between unemployment and the persistence of low income. For that reason, we have proposed a second duration indicator. As described in Table 6.1, this is the number of people who have experienced 'long-term unemployment' in the sense that, while their current spell may not have lasted more than one year, they have experienced one or more spells of unemployment that cumulatively add up to one year or more.

Figure 6.7 Cumulative periods of long-term unemployment

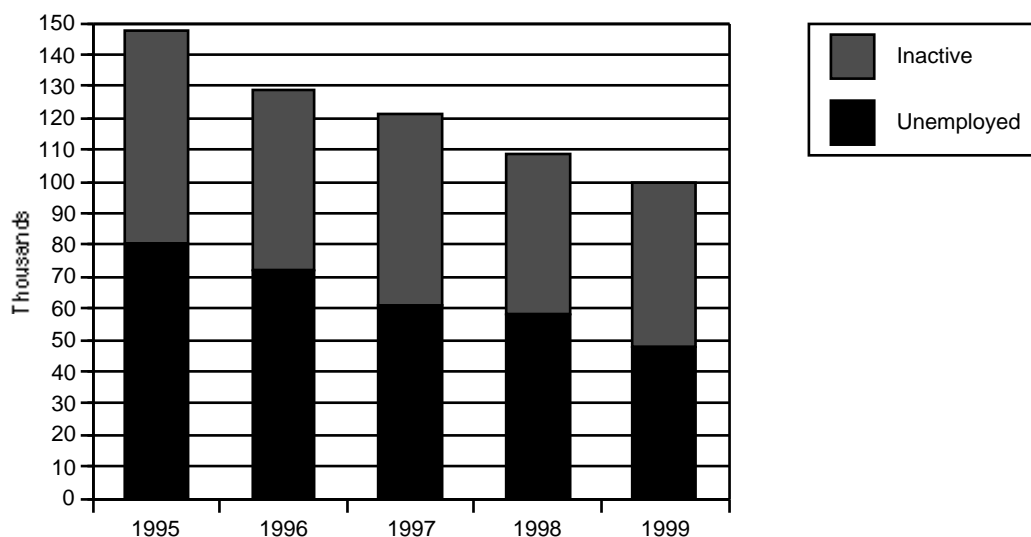


Source: DETI claimant count longitudinal database.

6.41 The cumulative long-term unemployment data illustrated in Figure 6.7 were extracted from DETI's longitudinal database for tracking peoples' spells of claimant unemployment. It should be noted that the indicator is based on a claimant count definition of unemployment, that is, people claiming Job-seekers Allowance (JSA) whereas LFS measures are based on the ILO definition of unemployment⁹.

6.42 The final point regarding the proposed indicators is the inclusion of a measure that incorporates 'hidden' unemployment, that is, individuals who want paid work but are not presently actively seeking work (Figure 6.8). This indicator is proposed on the basis that it may reflect low income individuals who would like a job but are constrained in their job-search efforts.

Figure 6.8 Individuals wanting paid work



Source: LFS.

Employment

6.43 Four indicators are specified in relation to employment (Table 6.2). As with the unemployment indicators, the key data sources are the LFS and the CHS. We do not repeat the comments made above in respect of these data sources.

Table 6.2 Employment

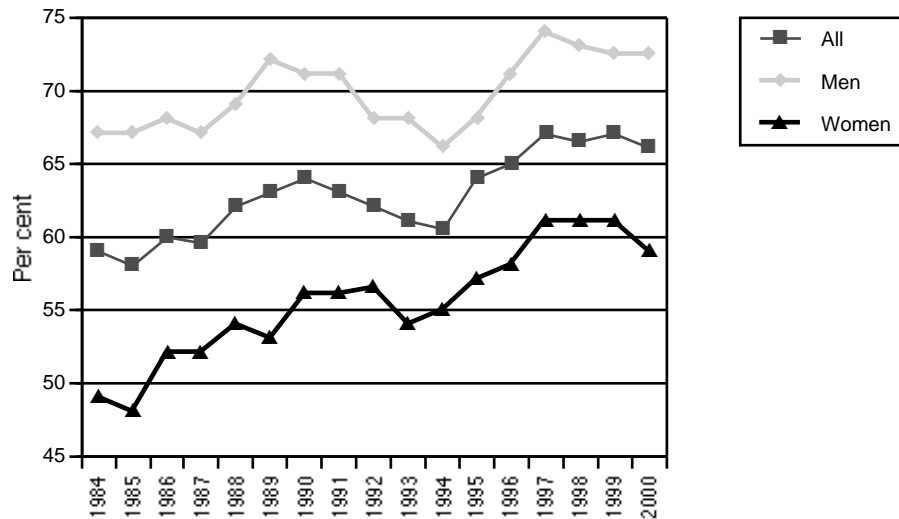
Indicator	Measures	Profiles	Data sources	Comment
4 Employment rate	Working-age people in employment as % of working-age population	Age, gender, religion On a low income	LFS CHS	LFS explicitly oriented to labour market – trend analysis, comparability. CHS for low income relevance.
5 Non-employment rate	Working-age people without a job as % of working-age population	Age, gender, religion, illness/disability family type On a low income	LFS CHS	LFS – see 4 above CHS for low income and family type.
6 Households without paid work for 2+ years	Number, % of working-age households	Family type On a low income	LFS CHS (but not currently defined)	Sample size issue in LFS CHS – would need to derive the indicator
7 Low pay	% in a job less than half male median earnings (index to GB, NI)	Gender Employment status	LFS, NES	LFS is a problem (see LPC reports). Need a mixed approach.

6.44 The employment rate is one measure of capability to successfully access job opportunities. As Figure 6.4 above illustrates, having a job considerably reduces the risk of being in a low income household. This indicator also reflects overall macro-economic conditions, so it is useful to include as a context indicator (Figure 6.9).

6.45 The non-employment rate encompasses both people who are unemployed, but seeking work, as well as those who are ‘economically inactive’, that is, they are not seeking work. As can be seen from Figure 6.4, people who are inactive have an above average risk of living in a low income household. It is a general measure of labour market disadvantage (e.g. Robinson, 1998).

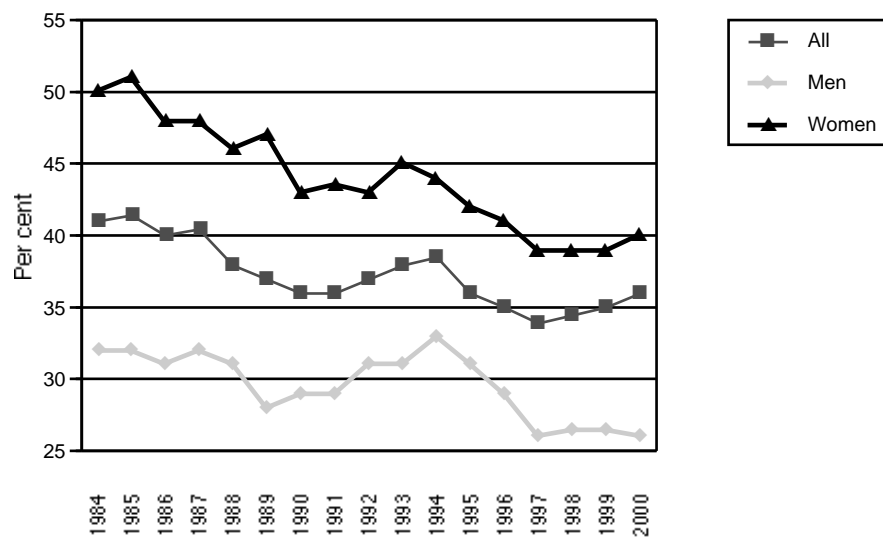
6.46 The non-employment rate is the obverse of the employment rate (compare Figures 6.9 and 6.10). This does not mean, however, that it is a redundant indicator. Because it points to an above-average risk of low-income, the main point of interest is in fact the profile. That is, what groups of people comprise the non-employed, and why are they in that position?

Figure 6.9 Employment rates: Working-age adults



Source: Labour Force Survey

Figure 6.10 Non-employment rates: Working-age adults



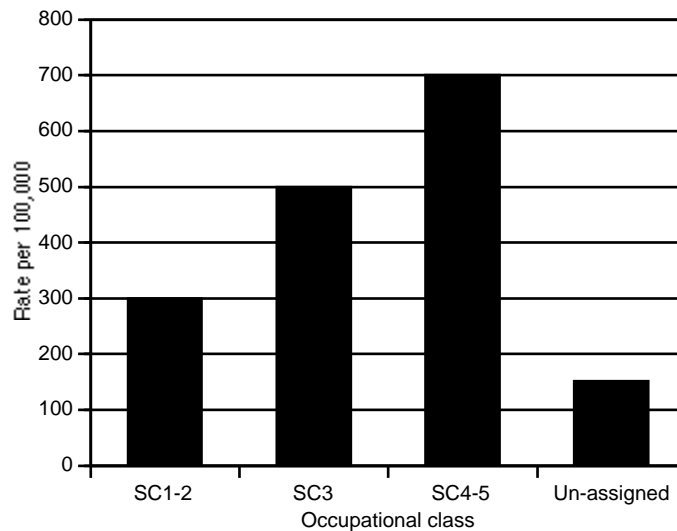
Source: Labour Force Survey

- 6.47 The third employment indicator is the number of households without paid work for two years or more. It is included here as an indicator of the persistence of a high risk of low income resulting from lack of access to the labour market. This indicator features in Howarth *et al*, citing the LFS as their source. It has not, however, been defined for Northern Ireland and it may well prove necessary to combine a number of years of data.
- 6.48 The final employment indicator, for the incidence of low pay, is intended to reflect the finding reported in Section 5 above that having work is not itself a guarantee against being on a low income. Information on earnings is collected through the LFS, and this is the source used by Howarth *et al* for their indicator number 26.
- 6.49 However, it has been found in the past, notably through the work of the Low Pay Commission, that estimating the incidence of low pay from the LFS is problematic. This is because the LFS appears to over-estimate the number of people at the lower end of the income scale, partly because responses for some household members are obtained by proxy (LPC, 1998, 2000). The LPC approach has been to combine information from the LFS and the New Earnings Survey (NES). The NES is a sample of employee pay records, but it only includes those who earn in excess of the PAYE threshold. Thus, the NES tends to under-estimate the number of low-paid individuals.

Health and social well-being

- 6.50 Indicators of social need in health and social well-being can broadly be classified according to whether they measure mortality or morbidity. Both of these measures of the health status of the population exhibit strong income gradients. The lower is an individual's income the more likely is that person to die earlier or to suffer health problems.
- 6.51 With regard to mortality, recent research published by the Institute for Public Health in Ireland (Balanda and Wilde, 2001) shows a clear correlation between occupational class, a proxy for income, and standardised mortality rates (SMRs) per 100,000 of the population (Figure 6.10).

**Figure 6.11 Annual directly standardised mortality rates (per 100,000)
Working age males by occupational class**

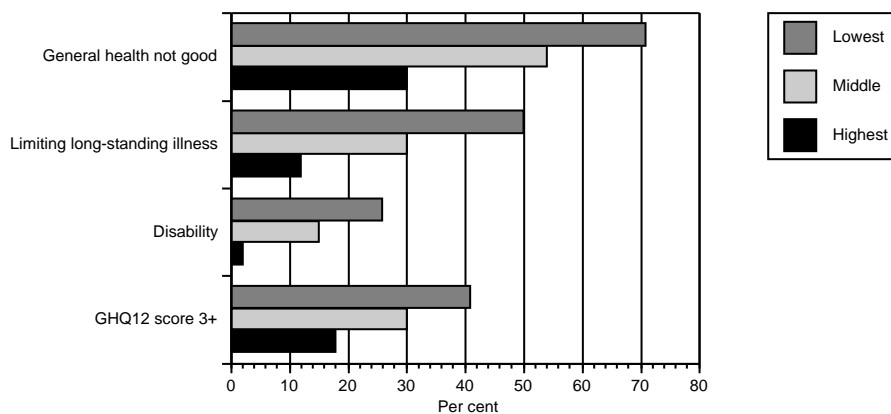


Source: *The Institute of Public Health in Ireland, 2001.*

6.52 Similarly, the evidence from the 1997 NI Health and Social Well-being Survey (HSW) is that there is a strong and statistically significant correlation between income and health status as measured by a range of indicators (Figure 6.11).

6.53 The proposed indicators for this policy area directly reflect the foregoing findings (Table 6.3). The proposed mortality indicator is the SMR per 100,000 people. The SMR for under-75s, by gender, is one of the component indicators of the health domain in the NI Measures of Deprivation.

**Figure 6.12 Health and well-being indicators by income level
Adults aged 45-64**



Source: *NI Health and Well-being Survey.*

6.54 The SMR for under-65s is also included since this is the indicator emphasised by Carstairs and Morris (1991) in a detailed analysis of the relationship between deprivation and health in Scotland.

Table 6.3 Health and social well-being

Indicator	Measures	Profiles	Data sources	Comment
Mortality				
8 Standardised mortality rate (SMR)	Per 100,000 persons, SMR 65 and 75	Social class, gender	GRO	High % unassigned Social class is a proxy indicator
Adult health				
9 General health not good	Per cent	Age, gender, income level	NI Health & Wellbeing Survey CHS	H&SW survey is every five years
10 Limiting long-standing illness	Per cent	Age, gender, income level	NI Health & Wellbeing Survey CHS	See 9
11 Disability	Per cent	Age, gender, income level	NI Health & Wellbeing Survey CHS	See 9
12 GHQ12 score 3+	Per cent	Age, gender, income level	NI Health & Wellbeing Survey	See 9
Child health				
13 Low birth weight babies	Per 1,000 births	Social class?	GRO	Howarth <i>et al</i> No. 10
14 Child health		Income level	CHS	To be derived from CHS module

6.55 Regarding the wellness indicators, there are two points of note. First, we distinguish between children and adults. Partly, this is because, through the HSW survey, the information available for adult health and well-being measures is more established and has been more extensively analysed. The Northern Ireland HSW was undertaken in 1997, when interviews were conducted with 4,688 individuals aged 16 and over. Thus, the HSW survey is focused on the adult population.

The results reported in Figure 6.11 above were extracted from an analysis prepared by a research team based at the Queens University of Belfast (O'Reilly and Browne, 2001).

- 6.56 Child health measures are more difficult to establish. In Table 6.3 above we follow Howarth *et al* in specifying the incidence of low birth weight babies as one indicator for child health. It would, however, be useful to develop a second indicator in this area. One possibility is to make use of the CHS Child Health module.
- 6.57 Second, as noted in Table 6.3, the HSW survey is only undertaken every five years. However, information in respect of the general health, limited long-standing illness and disability indicators is also collected on an annual basis through the CHS. This means that the analysis of these health and well-being indicators can be integrated with the low-income indicator developed from the CHS and discussed in Section 5 above.
- 6.58 A final point to note in the health sphere is that the DHSSPS focuses considerable attention on constructing indicators of need over and above age-sex considerations for the purposes of resource allocation (Capitation Formula Review Group, 2001). These indicators are based on utilisation data, or observed demand, but a study is currently being launched to address the issue of measuring unmet need. This should be of interest from a TSN perspective as there is some evidence that unmet need is correlated with socio-economic status.

Education

- 6.59 Three indicators are proposed in the sphere of education (Table 6.4). Again, separate indicators are proposed for children and adults. With regard to children, the proposed indicator focuses on qualifications achieved at the age of 16. As noted in OFA (2000: 204), "this provides a foundation for future employment or training and affects a young person's life chances". The choice of indicators follows Howarth *et al*, that is, the proportion with no GCSEs or with no grades A*-C, but at least one grade D to G. OFA focuses on the obverse of this indicator, but this is in the nature of a performance indicator. A profile of poverty

really needs to consider the characteristics of those who are most at risk of poverty or low income.

- 6.60 The data for this indicator will be available from DE, who should also be able to supply information on the incidence of eligibility for Free School Meals (FSM) amongst those with low attainment.
- 6.61 Children are eligible for free school meals if their parents are in receipt of Income Support or income-based Jobseekers Allowance (JSA). FSM is therefore a good indicator of general social disadvantage experienced by children. It injects a poverty-relevant dimension to the profile for the proposed indicator.
- 6.62 A final point to note in relation to children is that DE hold extensive databases and have recently produced an analysis of existing information on education participation, achievement and outcomes for disadvantaged individuals and groups. Rather than duplicate DE's efforts, we have focused on a key indicator that is especially relevant to an individual's later life chances.

Table 6.4 Education

Indicator	Measures	Profiles	Data sources	Comment
Children				
15 Low attainment at school	% school-leavers with: No GCSEs No grades A*-C, at least 1 D-G	FSM entitlement (income relevance)	DE	Adapted from Howarth no. 12
Adults				
16 Without a basic qualification	Per cent	Age, age left school, labour market status Low income	LFS, CHS	LFS - trend analysis, comparability. CHS for low income relevance
17 Adult literacy	Per cent scoring 1-2 on literacy scales	Age, Labour market status	Adult Literacy Survey	May not be repeated for some time

- 6.63 Two indicators are proposed in respect of adults, the proportion without a basic qualification and adult literacy. The former is more usually

reported via the LFS and time-series data are readily available from this source. But the CHS also includes an education module from which it should be possible to construct a comparable indicator. As in other such instances, doing this would enable the low income dimension to be more explicitly incorporated into the profile for the indicator.

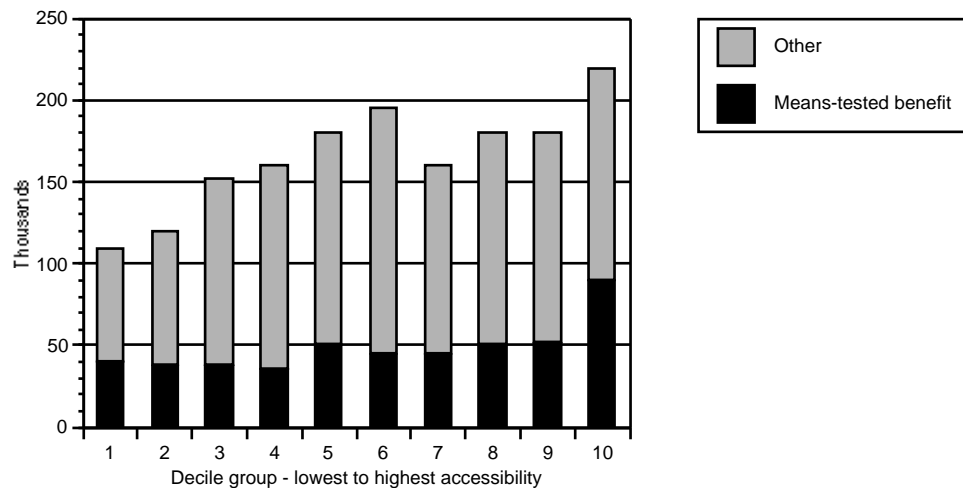
- 6.64 Adult literacy rates can be assessed from the Northern Ireland Adult Literacy Survey (ALS) of adults aged 16-65 carried out by NISRA's Central Survey Unit in 1996 (see Sweeney *et al*, 1998). The objective of the Survey was to profile the literacy abilities of adults aged 16-65 using internationally agreed instruments for measuring literacy⁴. Three dimensions of literacy were assessed – prose, document and quantitative – on a five point scale ranging from lowest to highest. One of the findings was that prose literacy levels tended to be lower for unemployed people⁵. Partly, this is because literacy skills are not just a function of formal schooling, but also reflect regular engagement in literacy activities in the workplace (*ibid*: 73).
- 6.65 The main problem with the literacy indicator is that the ALS is unlikely to be repeated for quite some time. Partly, this is because adult literacy levels change only very slowly. Thus, annual measurements would not be cost-effective. We have not, however, omitted literacy from the proposed framework for key policy areas. It is an important indicator and the level of need should be acknowledged and highlighted.

Geographical access to services

- 6.66 Public services cannot be ubiquitous and hence the geographic provision of these services means that some are located further from points of 'supply' than are others. Overcoming distance is the 'price' that people pay to use some service. This is likely to be more of a barrier for some than for others. Our interest is in the extent to which those on low incomes or at risk of poverty may face an increased risk of deprivation in use of public services due to accessibility barriers.
- 6.67 It may ostensibly seem reasonable to simply adopt the NI Measure of Deprivation for this domain. However, this is a purely distance-based measure, so its distribution reflects a range of influences. The key point

in the present context is that the index appears to be negatively correlated with the distribution of low income individuals (Figure 6.13).

Figure 6.13 Noble deciles of geographical access to services
Distribution of population by receipt of a means-tested benefit



Source: Noble et al, 2001. NI Measures of Deprivation.

6.68 There are two points to note. First, the geographical access index obviously includes a rurality or sparsity component. Second, the decile with the highest concentration of people living in receipt of means-tested benefits is also the most accessible. This probably reflects the concentration of lower income households in inner city areas. In fact, some element of the variability in accessibility must reflect personal preferences, as more affluent households trade off reduced geographic accessibility for lower density housing in suburban locations.

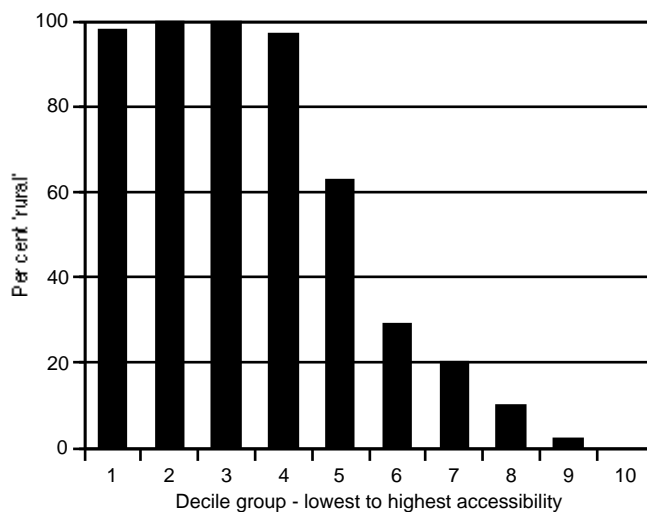
6.69 Measured on the basis of a distance metric, rather than differentials in the resources available to households, this can mean that lower levels of accessibility may be a question of choices made by non-poor households as opposed to lack of access by poorer households. Reflecting the above, the proposed indicator for this key policy area is the number and per cent of low income households in the bottom three deciles of the NI measure of geographical access to services (Table 6.5).

Table 6.5 Geographical access to services

Indicator	Measures	Profiles	Data sources	Comment
18 Low income individuals w/poor access to services	Number, % of low income persons in bottom three deciles of Noble Geographical Access Index	Location e.g. by Noble decile, rural/urban	NI Measures of Deprivation Perhaps CHS	Rural focus CHS would need an indicator to flag Noble decile of person's area of residence

6.70 The rationale for this is to ensure that the indicator is expressly linked to those people who are most at risk of experiencing disadvantage or deprivation due to lack of accessibility to services. This indicator has the advantage of incorporating a strongly rural component in the overall. Defining a rural ward as one that contains five or more active farm units, almost all of the wards in the bottom three deciles of the NI measure of geographical access to services can be classified as 'rural' (Figure 6.14). That is, the proposed indicator is effectively measuring the concentration of low-income families in the more isolated rural areas.

Figure 6.14 Noble deciles of geographical access to services
Per cent of population living in a 'rural' ward (5+ active farms)



Sources: Noble et al, 2001. NI Measures of Deprivation. DANI, RDP Baseline and Evaluation Plan 1994-1999.

6.71 A final point in respect of this policy area is that it is not wholly satisfactory to confine attention simply to geographical access. There are many other ways besides distance in which people may face barriers to accessing public services. But it is not at present feasible to capture these other barriers in a meaningful fashion in the context of a poverty indicators framework⁶.

Social environment

6.72 The NI Measures of Deprivation for this domain include two indicators:

- A range of recorded offences, intended to act as a proxy indicator for fear of crime.
- A local area problem score derived from the 1996 House Condition Survey.

6.73 A NI Crime Survey is presently underway (Autumn 2001) so a direct measure of the fear of crime will shortly be available for Northern Ireland. Though they both define this indicator for elderly people, the interpretation differs somewhat between Howarth *et al* and OFA. The former casts it as a health and well-being measure, under the heading of 'anxiety', while the latter focus on the impact on older peoples' ability to live a secure and active life. While the indicator undoubtedly has a strong social inclusion/vulnerable groups dimension, it can also be interpreted as reflecting an aspect of deprivation in the quality of life that a person feels able to enjoy.

6.74 The local area problem score used by the NI Measures of Deprivation is based on the results of the NI House Condition Survey. The House Condition Survey (HCS) is conducted approximately every five years. The 2001 version is currently under way so the most recent results relate to 1996. The 1996 HCS was the most comprehensive and detailed of the six surveys undertaken up to that date. Full internal and external appraisals were completed for over 10,200 dwellings and household interviews were obtained with over 9,200 households, compared to 2,500 residents in the 1991 Survey.

- 6.75 A considerable volume of socio-economic and demographic information is collected in the course of the HCS. The income variable is not amenable to equivalisation (there are too few bands), but some insights can be gleaned when this is profiled in conjunction with other relevant indicators such as household labour force status or tenure. Thus, data from the HCS can be profiled for people and groups as well as for areas.
- 6.76 The NI Measure of deprivation is intended to reflect deprivation in terms of peoples' quality of living conditions within their local environment. An alternative and more useful index for the purposes of this study is the NI index of overall poor quality of living conditions. This index was reported in the PricewaterhouseCoopers (1999) thematic reports on the NIHE and Housing Association dwelling stocks.
- 6.77 The index was based on the English House Condition Survey's *index of poor living conditions* in order to provide an overall summary assessment of the quality of living conditions in local areas. Housing Executive areas based on the foregoing indicators. It reflects three variables⁷:
- The per cent of dwellings in the local area assessed to be seriously defective.
 - The presence of one or more major problems (similar to the NI Measure of Deprivation indicator).
 - Visual quality of the local area.
- 6.78 The foregoing index therefore encompasses that used in the NI Measure of Deprivation while also fleshing out the components of local quality of living conditions. In addition, the indicator will tend to have an urban focus, thus providing a useful counterpoint to the more rural focus of the accessibility measure. Table 6.6 provides a summary of the foregoing indicators.

Table 6.6 Social environment

Indicator	Measures	Profiles	Data sources	Comment
19 Fear of crime	% aged 60+ reporting their lives are greatly affected by fear of crime	Age, family type, income proxies	NI Crime Survey – November 2001. Last run three years previously	As per OFA
20 Low income individuals living in poor quality environments	Local area problem scores (per Noble) or Quality of Local Living Conditions index	Urban/rural, age, income with tenure, employment status, etc	House Condition Survey (HCS)	Large survey, every five years – 1996 most recent. 2001 ongoing

Housing

6.79 The housing domain in the NI Measures of Deprivation is a composite index based on three components:

- Housing in disrepair.
- Houses without central heating.
- Houses lacking insulation.

6.80 Taken together, these are intended to reflect housing ‘stress’ due to unsatisfactory living conditions. The data were all sourced from the 1996 HCS, which was discussed above.

6.81 In the interest of comparability, and also because it more directly measures deprivation in the housing sphere, our preference is for a composite indicator of poor housing based on a specification given in the English House Condition Survey (Table 6.7). According to that measure, poor housing is identified if any one of the following holds

- The dwelling is classified as unfit.
- The dwelling is in ‘substantial disrepair’.

- ‘Essential modernisation’ is required (e.g. electrics, kitchen facilities, lack of fixed space heating).

6.82 This Measure has already been defined for the 1996 NI HCS and can be compared with its counterpart in England (PricewaterhouseCoopers, 1999).

Table 6.7 Housing

Indicator	Measures	Profiles	Data sources	Comment
21 Poor housing index	% of dwellings, population	Age, location (rural/urban), income proxies, e.g. tenure, household employment status	House Condition Survey (HCS)	See 20

Concluding remarks

6.83 This Section has addressed two issues:

- The specification of a set of poverty-relevant indicators across key policy areas.
- To assess the feasibility of establishing a baseline picture across key policy areas.

6.84 The approach taken to meeting these objectives was as follows. The first step was to consider options for the identification of a set of key policy areas. Reflecting the broad scope of New TSN, which sees Departments contributing in varying degrees to each of its three legs, and also the need to achieve complementarity with the spatial targeting framework, the seven domains of the NI Measures of Deprivation were chosen as an appropriate ‘template’ for a set of key policy areas.

6.85 In each of these key policy areas, indicators were proposed against a number of criteria. The mandatory criteria are relevance and feasibility.

- 6.86 The relevance criterion means that indicators have to reflect some aspect of poverty or enforced deprivation. For the most part, reliance was placed on the risk and concentration of low income as the key test of relevance. This in turn is due to the under-developed nature of NI poverty data in relation to deprivation as discussed in Sections 3 and 4 above.
- 6.87 The second mandatory criterion of feasibility was assessed against the availability of appropriate data for measuring the proposed indicators.
- 6.88 The remaining criteria were comparability of the indicator with national measures, availability of time series data for trend analysis, and availability of data for profiling. These criteria were treated as desirable rather than mandatory, for a number of reasons.
- 6.89 First, the objective is to enhance understanding. Thus, in contrast to Howarth *et al*, interesting but occasional survey data sets were deemed to be appropriate in meeting the feasibility criterion. Second, Northern Ireland data sets often do not have the large sample sizes obtainable at national level, which inevitably constrains the construction of time series data and profiles. It should, however, be noted that some element of profiling with respect to low income or deprivation or a reasonable proxy measure was generally a prerequisite to assessment of relevance.
- 6.90 Finally, it was considered desirable to specify a parsimonious set of indicators. Partly, this reflects cost-effectiveness considerations. But it is also important to have a balanced and manageable set of indicators that can be analysed to enhance understanding.
- 6.91 The outcome of the above is a set of proposed indicators across key policy areas, including measurement, data sources, key profiles, and comments with regard to comparability and trend analysis. The proposals are summarised in Table 6.8.

Table 6.8 Indicators for key policy areas

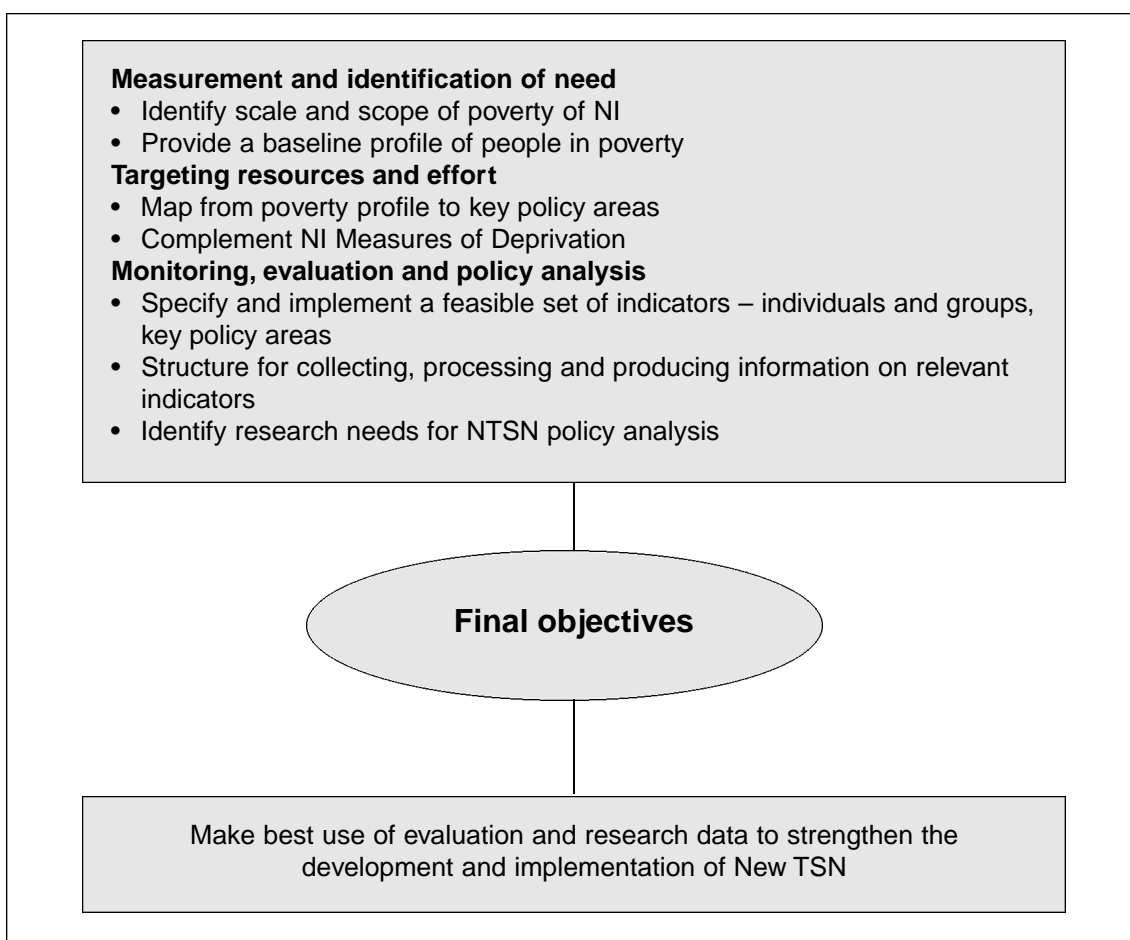
Indicator	Measure
Unemployment	
1 ILO Unemployed	Level and % of labour force
2 Duration of unemployment	
(a) ILO unemployed 1 year+	% of labour force
(b) Cumulative long-term unemployment	1 year+ in last three years
3 Individuals wanting paid work	Level, % of working-age population
Employment	
4 Employment rate	Working-age people in employment as % of working-age population
5 Non-employment rate	Working-age people without a job as % of working-age population
6 Households without paid work for 2+ years	Number, % of working-age households
7 Low pay	% in a job paid less than half male median earnings (index to GB, NI)
Health and social well-being	
Mortality	
8 Standardised mortality rate (SMR)	Per 1,000 persons, SMR 65 and 75
Adult health	
9 General health not good	Per cent
10 Limiting long-standing illness	Per cent
11 Disability	Per cent
12 GHQ12 score 3+	Per cent
Child health	
13 Low birth weight babies	Per 1,000 births
14 Child health	
Education	
Children	
15 Low attainment at school	% school-leavers with, No GCSEs; No grades A*-C, at least 1 D-G
Adults	
16 Without a basic qualification	Per cent
17 Adult literacy	Per cent scoring 1-2 on literacy scales
Geographical access to services	
18 Low income individuals w/poor geographical access to services	Number, % of low income persons in bottom three deciles of Noble Geographical Access Index
Social environment	
19 Fear of crime	% aged 60+ reporting their lives are greatly affected by fear of crime
20 Low income individuals living in poor quality environments	Quality of Local Living Conditions Index
Housing	
21 Poor housing index	% of dwellings, population

7 New TSN Poverty Indicators Framework

Introduction

- 7.1 The objective of this Section is to make recommendations for an indicative framework for the development of indicators of poverty in Northern Ireland. The components of such a poverty indicators framework were set out in Section 1 above (see Box A). These components encompass the identification and measurement of poverty, profiling of people in poverty, assessment of scale and scope of poverty, and analysis of the multiple dimensions of poverty.
- 7.2 In Section 2 we discussed the New TSN policy context and identified intermediate objectives for a New TSN poverty indicators framework. These are reproduced in Figure 7.1 below.

Figure 7.1 New TSN poverty indicators framework: Intermediate objectives



- 7.3 The objectives relating to the measurement and identification of need in the context of preparing a picture of poverty in Northern Ireland have been extensively discussed in Sections 3-5 above. In Section 6 we considered mapping from a poverty profile to key policy areas with a view to complementing the NI Measures of Deprivation. Taken together, the findings of Sections 3-6 provide the basis for the specification and implementation of a feasible set of poverty indicators. Hence, the primary focus of this Section is on the design of a structure for collecting, processing and producing information on poverty indicators and identifying research needs for New TSN policy analysis.
- 7.4 The Section begins by briefly considering conceptual issues for the design of such a structure, that is, the matrix of data requirements and the concept of poverty that is most appropriate to New TSN. We then consider data collection issues. Data availability has received considerable attention in Sections 3-6 above. Hence, in this Section, we take stock of the present position and consider what steps need to be taken to address gaps in the existing data infrastructure, both in terms of establishing a baseline position and future collection of poverty-related data. This is accomplished by setting out options for a data collection strategy both with respect to establishing an interim position and over the medium term. The Section concludes with recommendations for implementing a New TSN poverty indicators framework.

Design Issues

- 7.5 Within the context of New TSN, there are two key design issues to be addressed in specifying a poverty indicators framework:
- The thematic framework.
 - The conceptual approach to identification and measurement.

Thematic framework

- 7.6 The discussion of the New TSN policy context in Section 2 above highlighted a number of issues that need to be addressed in a New TSN poverty indicators framework:

- The need to reflect the three 'legs' of New TSN.
- TSN targets people and groups as well as areas. There is therefore a need to complement the existing area-based NI Measures of Deprivation.

7.7 These considerations suggest a thematic framework based on cross-classifying groups and areas with the three legs of New TSN, as illustrated in Figure 7.2. In Section 6 above, the identification of key policy areas was based on the domains of the NI Measures of Deprivation. Clearly, the thematic framework also provides a 'template' for a New TSN poverty report. Howarth *et al* and OFA map from groups and areas to key policy areas. But it is also appropriate to map from key policy areas to groups and areas. This is the approach that we adopted in Section 6 above.

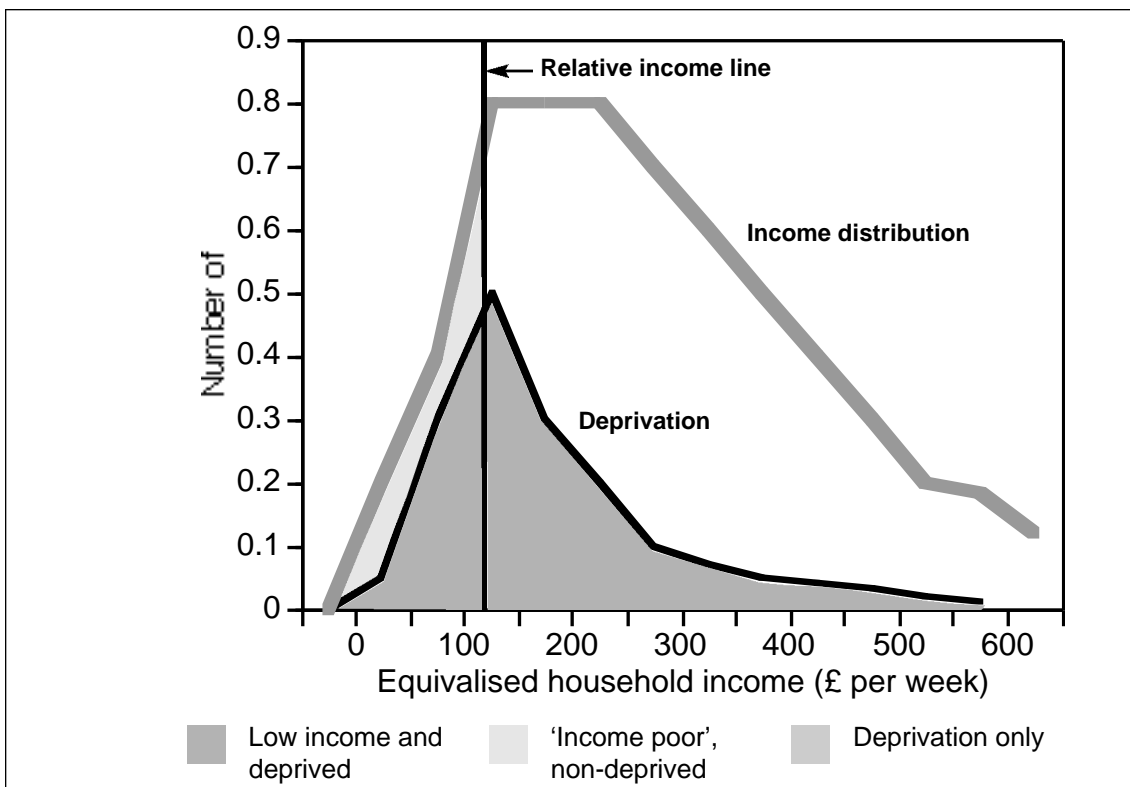
Identification and measurement

7.8 Section 3 above presented a review of conceptual issues associated with the identification and measurement of poverty. The main conclusion drawn from the review was the desirability of adopting a mixed income-deprivation approach, as illustrated in Figure 7.3.

Figure 7.2 New TSN Indicators:Thematic Framework

Key policy areas	Groups and areas				
	Individuals	Children	Working age people	Older people	Communities and areas
Characteristics	<ul style="list-style-type: none"> ➔ Family type ➔ Economic status, etc 				➔ Geography
Poverty	<ul style="list-style-type: none"> ➔ People living in low-income households ➔ Deprivation (enforced lack) 				➔ Income Domain of NI Measures of Deprivation
Unemployment & Employability	<ul style="list-style-type: none"> ➔ Education & training ➔ Adult literacy ➔ Unemployment ➔ Employment 				➔ Domains of NI Measures of Deprivation
Needs & inequalities in other areas	<ul style="list-style-type: none"> ➔ Health ➔ Housing ➔ Other areas 				➔ Domains of NI Measures of Deprivation
Multiple disadvantage	➔ Correlates of poverty				➔ NI Measure of Multiple Deprivation

Figure 7.3 Mixed income-deprivation approach to measurement and identification of poverty



- 7.9 As discussed in Section 3 above, the mixed income-deprivation approach can be entirely based on the enforced lack model used in the PSE study or some combination of a poverty line and enforced lack approach as proposed by the ESRI.
- 7.10 In order to implement the ESRI model, which encompasses the PSE model, it is necessary to have an income distribution dataset that also contains the information required for a deprivation index based on enforced lack. Such information is not at this time available for Northern Ireland. Nonetheless, taking the mixed income-deprivation approach as the conceptual model that we wish to implement provides a clear parameter for the design of a data collection strategy. Prior to considering such a strategy, we briefly review the present availability of data in Northern Ireland with specific reference to data gaps.

Components of a Poverty Indicators Framework: Present Position

- 7.11 Data availability for the components of a New TSN poverty indicators framework has been extensively reviewed in Sections 3-6 above. The main findings are summarised in Box J for each of the components of a poverty indicators framework.
- 7.12 Clearly, there are many gaps. As discussed in Sections 3 and 4 above, Northern Ireland currently does not participate in the Family Resources Survey (FRS). The very basic requirement for an equivalised income distribution dataset is therefore absent. A baseline position could in principle be established using the Family Expenditure Survey (FES). As discussed in Section 5 above, there are some practical difficulties associated with this.
- 7.13 The sample size of the FES in any one year would not be adequate to the purpose of constructing an equivalised income distribution. This difficulty could in principle be circumvented by pooling data for a number of years. But there are also some differences between the FES and FRS that would inhibit the production of an equivalised income distribution data set that is comparable with the FRS-based distribution reported in the GB HBAI analysis.

- 7.14 Further, Central Survey Unit (CSU), which maintains the NI FES, has stated that it does not presently have the resources required to produce an equivalised income distribution from the FES, particularly since the FRS will be introduced to Northern Ireland from spring 2002 onwards. However, this will not produce results until sometime in 2004.
- 7.15 In light of the above, it proved necessary to rely on proxy indicators to make a qualitative assessment of the number of people on low incomes in Northern Ireland. It was, however, possible to produce a profile of people on low incomes by making use of the Continuous Household Survey (CHS). The methodology and selected results were discussed in Section 5 above. Based on the CHS, it proved feasible to provide a picture of people in the bottom 30 per cent of the income distribution.

Box J
NI data for a picture of poverty:
Assessment of current position

	Data availability & gaps	Potential for a baseline
Identification and measurement		
■ Number	Gaps - Equivalised income distribution (e.g. FRS) and deprivation data (e.g. PSE, ESRI) not available	Income distribution – potentially FES – resource implications, limitations (5.4-5.11) Proxy indicators (5.12-5.25)
■ Trends	Gap - not available	Proxy indicators (5.69-5.82)
Profile		
■ Characteristics	Gaps - Equivalised income distribution (e.g. FRS) and deprivation data (e.g. PSE, ESRI) not available	CHS Bottom 30 per cent (5.26 – 5.65)
■ Risk		
■ Concentration		
■ Location	Gap – link from low-income data to Noble deciles	CHS Bottom 30 per cent for broad sub-regional pattern (5.66-5.68)
Scale and scope		
■ Depth	Gap - equivalised income distribution data not available	None
■ Persistence/dynamics	Gap – panel data (e.g. BHPS) not available	Proxy indicators (5.69-5.82)
Multiple dimensions		
■ Correlates	Gap	Research agenda to be specified – fill gaps, enhance understanding
■ Key policy areas	Variable	Feasible set of 21 indicators proposed across domains of NI Measures of Deprivation (Section 6. Table 6.8 summary) Profiles important – some can be linked to low income using CHS.

7.16 It is therefore possible to address some of the information gaps from existing data sources. The major gap that needs addressing, however, is the absence of a deprivation perspective, based on the enforced lack model utilised by both the PSE and the ESRI. This gap needs to be addressed both in the short-term, to facilitate a fuller picture of poverty in Northern Ireland, and over the medium-term in order to build up a picture of poverty trends. It is to these issues that we now turn.

Data Collection Strategy

7.17 A data collection strategy for a New TSN poverty indicators framework is discussed here under two headings:

- Options for establishing an interim position.
- Options for the medium term

Interim position

7.18 Sections 5 and 6 above gave considerable attention to the use of existing data sources in providing a picture of people on low incomes and across key policy areas. Hence, this Section focuses on the issue of addressing the absence of a deprivation or enforced lack perspective. That is, what needs to be done to achieve a baseline picture that encompasses a mixed income-deprivation model for the identification of poverty?

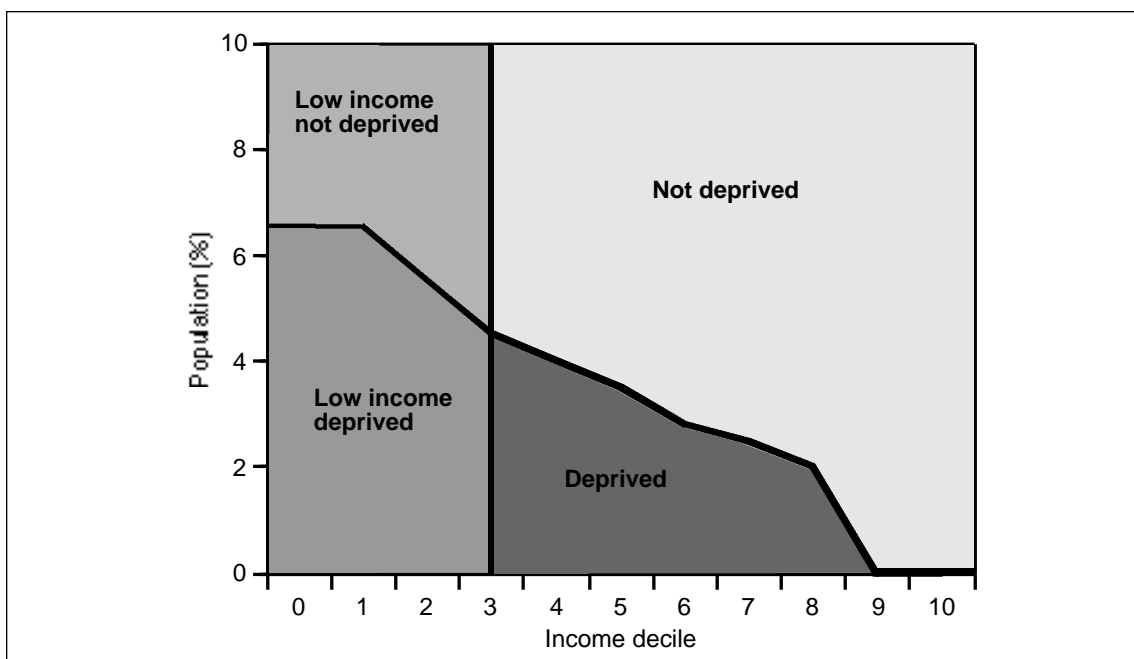
7.19 An important point to note is that the FES is not a feasible option in meeting such an objective. Original survey research will be required. There are essentially two options:

- The insertion of an enforced lack module into the 2002/2003 Continuous Household Survey.
- Commissioning a bespoke Poverty Survey.

7.20 The discussion in Section 5 showed that it was possible to produce a picture of people in the bottom 30 per cent of the income distribution using the CHS. Obviously, the deprivation or enforced lack perspective was missing. We also described the CHS, including its modular

structure based on a set of core items that are always included and non-core items that are occasionally included. In principle, therefore, it ought to be possible to add an enforced lack module to the CHS, that is, a set of questions relating to a household's consumption or possession of a set of items similar to those used in the ESRI or PSE models. Households would need to be asked whether they possess or consume the item and, if not, whether this is due to lack of resources. The availability of such information would then make it possible to estimate an income-deprivation gradient, as illustrated in Figure 7.4, for the identification of people in poverty.

Figure 7.4 A mixed-income deprivation approach to poverty assessment based on bottom 30 per cent of income distribution



7.21 The main advantages of such an approach would be as follows:

- The integration of the income-deprivation gradient with the other socio-economic and demographic data contained in the CHS.
- The CHS is a large survey, so it should be possible to produce profiles for socio-economic and demographic characteristics.
- The CHS links in well with a number of indicators identified for key policy areas in Section 6 above.
- This is likely to be a cost-effective approach, since the CHS will be undertaken anyway and hence only marginal or additional costs would need to be met.

7.22 The main disadvantages of such an approach are as follows:

- Timing. The CHS 2002/03 would not report until early to mid-2003.
- Scope. The size of the poverty module would necessarily have to be restricted to enforced lack items. By contrast, for example, the PSE survey was able to explore a number of different definitions of poverty, as well as a range of issues related to social inclusion and also child poverty issues.
- The income question on the CHS. There are some problems with this, including its categorical nature and non-response. Income is not a central issue for the CHS. It is located at the back of the questionnaire and this is likely to affect the quality of the response. Also, the income question is gross of taxes and contributions.
- Benefits. Receipt of these appears to be under-reported in the CHS, an important consideration from a poverty perspective.

7.23 There would also be some uncertainties to be considered. In particular, the practicalities of integrating an enforced lack module into the CHS in such a way that this does not affect survey response or unduly lengthen the time required to complete the survey. There is also a generic concern with questions such as enforced lack, as respondents may be reluctant to admit lack of a socially-perceived necessity. This does not, it should be noted, appear to have been a problem for the PSE or Living in Ireland surveys. The problem of integrating an enforced lack module may not, however, be a binding constraint as the CHS already contains a set of core questions relating to possession of various consumer durables.

7.24 Many of these problems could be addressed by means of a bespoke Poverty Survey. This is likely to offer the following benefits:

- Timing. It should be possible for a bespoke survey to be undertaken over a shorter time period.
- Scope. A bespoke survey could explore a wider range of dimensions of poverty, and also social inclusion, than would be

feasible with a CHS module. The PSE survey provides an example of the range of issues that could be addressed, such as qualitative views on need for and access to various public services.

- Income and benefits. A bespoke survey could devise an explicit strategy to deal with the problems relating to income and benefits in the CHS.

- 7.25 The main difficulty associated with a bespoke survey is that it would cost more than a CHS module. The extent of the additional costs would largely be a function of the desired sample size and the unit of analysis. Undoubtedly, it would be preferable to design the survey along CHS lines, that is, a set of general household questions along with questions for individual household members. Regarding the required sample size, this would be a function of the desired level of profiling. The kinds of profiles produced for Section 5 of this report would, for example, require a relatively large sample. A more limited objective of defining an overall income-deprivation gradient would be achievable with a smaller sample size.
- 7.26 Two other issues should be noted. First, there is the question of the specification of the list of socially-perceived necessities against which enforced lack is to be measured. The simplest approach is to use either the PSE or Living in Ireland list. This would facilitate more direct comparisons with the PSE and Living in Ireland results.
- 7.27 The alternative is to generate an NI-specific list based on original survey research. As in the PSE survey, this could be done using the Omnibus Survey. The main benefit is that the hypothesis that the set of socially perceived necessities in NI are similar to GB or the Republic of Ireland could be explicitly tested. Apart from the additional cost, the main disadvantage is that this would push the timescale back.
- 7.28 The second point of note is that an alternative model for implementing a poverty survey is that used for the PSE survey. This was based on a follow-up of a sample of individuals interviewed for the General Household Survey (GHS), the GB counterpart to the CHS. The benefit of this is that the poverty survey could be linked in to the data already

available on the CHS. There may, however, be data protection issues around this strategy that could prevent the use of the 1999/00 CHS. For example, CHS respondents in that round would not have been informed of any follow-up survey. This issue would need to be discussed with CSU. It should, however, be noted that the follow-up response rate was described in the PSE report as 'disappointing' (Gordon *et al*, 2001: 90).

The medium term

- 7.29 As was discussed in Section 4 above, the absence of an equivalised income distribution dataset will be addressed in the medium term when the results of the FRS begin to emerge in 2004. In addition, the BHPS is also scheduled to be introduced into Northern Ireland. This will make available data on the persistence of low incomes.
- 7.30 These new data sources will greatly enhance the quantity and quality of information available for poverty assessment in Northern Ireland. They will, not, however, provide a longer-term solution to the absence of deprivation data. Thus, there are options to be considered in that regard beyond the immediate needs of establishing a baseline or interim position.
- 7.31 The 'do-nothing' option is to rely on the relative income line approach via the FRS. While this has considerable strengths, there are also a number of weaknesses in the context of identifying and measuring poverty (see Section 3 above). There are, however, a number of options that can be considered for implementing a mixed income-deprivation approach.
- 7.32 An approach modelled on the Living in Ireland survey would provide the best match with the components of a poverty indicators framework. As was noted in Section 4, this is unlikely to be cost-effective due to the advent of the FRS and the BHPS.
- 7.33 A second option is to investigate the possibility of incorporating a deprivation dimension into the NI FRS. This could be done by substituting a set of enforced lack questions for the current set of questions regarding the possession of consumer durables. The

rationale for doing this is that the FRS is primarily intended to facilitate the analysis of the situation of people on low incomes. Deprivation due to enforced lack is more relevant to this objective than is possession of durables. The latter indicator is a function of tastes as well as resources and is necessarily limited in the contribution that can be made to the assessment of poverty.

- 7.34 The remaining options are essentially the same as those for the establishment of an interim baseline position, that is:
- An enforced lack/deprivation module in the CHS to be repeated at regular intervals, perhaps at the beginning and end of New TSN Action Planning cycles (the current cycle is three years).
 - A bespoke Poverty Survey to be commissioned at regular intervals. Again, the most obvious timing is at the beginning and end of New TSN Action Planning cycles.

Recommendations

- 7.35 The main recommendations from the discussion in this and preceding sections are summarised in Box J.

Identification and measurement

- 7.36 Regarding the identification and measurement of poverty, the main recommendation is the adoption of a mixed income-deprivation approach. Implementing this recommendation raises problems of data availability, especially on the deprivation side, both in respect of the baseline position and beyond. For that reason, a number of options have been identified and the strengths and limitations of these have been discussed above.
- 7.37 The non-availability of trend data has been addressed by proposing a number of proxy indicators. These indicators focus on participation in the labour market and receipt of benefit. They are listed in Section 5 above.

Profile

- 7.38 It has been possible to devise a methodology for profiling people on low income, based on the bottom 30 per cent of the CHS income distribution. While the approach has a number of limitations, it provides a surrogate baseline position in the absence of an equivalised income distribution dataset.
- 7.39 In principle, the CHS profile could be augmented by FES data. While it is recognised that there are limitations to the use of the FES, nonetheless the feasibility of using the FES should be further investigated.

Box J

Recommendations for a New TSN poverty indicators framework

Identification and measurement

- Number
 - Mixed income-deprivation approach
 - Scope to apply PSE or ESRI
 - Options to be considered
 - Interim position
 - Medium term and beyond
- Trends
 - FRS not available in medium term
 - Must rely on proxy indicators
 - Receipt of benefit
 - Workless households, relative pay

Profile

- Characteristics
- Risk
- Concentration
- Location
 - Baseline – bottom 30 per cent of CHS equivalised gross household income
 - FES to be further considered
 - Interim
 - Need a deprivation dimension
 - Options to be considered
 - Medium-term
 - FRS will be main vehicle, but may be 2005 before have sufficient data for detailed profiling
 - Need a deprivation dimension. Options to be considered.
 - Location – need a procedure for profiling poverty groups by location according to Noble deciles

Scale and scope

- Depth
 - Needs an equivalised income distribution
 - Baseline and interim positions presently absent
 - Consider use of FES data pooled over three years
- Persistence/dynamics
 - BHPS results will take time to come through
 - Baseline and interim positions – must rely on proxy indicators

Multiple dimensions

- Correlates
 - Research agenda.
 - Statistical modelling of poverty risk (see, for example, Nolan and Whelan, 1996)
 - Domains of NI Measures of Deprivation
 - Focused/minimum set of indicators.
 - Can be augmented over time as data infrastructure improves and research enhances understanding
- Key policy areas

Reporting

- Poverty report
 - Structured by components of poverty indicators framework
-

- 7.40 The data currently available for profiling people on low incomes lacks a deprivation dimension. The need for profiling needs to be considered in assessing options for an income-deprivation approach to poverty identification and measurement, both for the interim baseline position and over the medium term.
- 7.41 The profiling by location needs to be by deciles of the NI Measures of Deprivation as well as by standard geographical areas such as the NUTS III regions. In the CHS this could, for example, be facilitated by developing an identifier for a respondent's location according to the deciles of the NI Measures.

Scale and scope

- 7.42 The analysis of the depth of poverty requires information on the equivalised income distribution. The use of the FES for this purpose should be further considered.
- 7.43 Analysis of persistence of low income will not be available from the BHPS for some time. In the interim period, it will be necessary to rely on proxy data. Relevant indicators have been proposed in Section 5 above, specifically the length of time on a means-tested benefit. The use of this indicator should be supplemented by information on the destinations of those leaving long-term means-tested benefit and returns to benefit. Greater use could be made of existing DSD databases.

Multiple dimensions

- 7.44 Reflecting the dearth of research that has to date occurred in providing a picture of poverty in Northern Ireland, there will be a need to develop a research agenda designed to better understand the correlates of poverty. This can commence immediately by further profiling from the CHS, including the estimation of statistical models for the risk of low income. The longer term research agenda will undoubtedly seek to incorporate the deprivation dimension, but this work must await the collection of relevant survey data.

- 7.45 In order to reflect the key concerns of New TSN, and also to ensure complementarity with the NI Measures of Deprivation, the thematic framework proposed for key policy areas is based around the seven domains of the NI Measures of Deprivation.
- 7.46 In addition to a range of low-income indicators, a set of 21 feasible indicators has been proposed for the six thematic areas of employment, health, education, geographical access to services, social environment, and housing (Section 6). This minimum set has been specified to provide a focus on key issues of concern from the perspective of facilitating a 'macro-level' perspective on New TSN. They can be augmented as the data infrastructure expands and understanding is enhanced through further research.

Reporting

- 7.47 The final recommendation is that it would be desirable to produce a Poverty Report on a regular basis. This would help to:
- Give impetus to the poverty theme in New TSN.
 - Enhance the level of understanding of poverty amongst interested parties.
 - Assist with the co-ordination of the New TSN initiative.
 - Provide a focus for public debate.

Concluding remarks

- 7.48 This report has sought to take stock of how best to utilise available data to present a picture of poverty in Northern Ireland. The conceptual approach adopted has been based on a mixed income-deprivation approach to poverty measurement. One of the key findings has been that there are many gaps in the availability of data to present a baseline picture of poverty, especially for the analysis of people on low incomes. Nonetheless, a considerable volume of data currently exists that can be utilised to meet some of the requirements for a poverty indicators framework, including especially the profiling of people on low incomes and the use of various survey and administrative databases across key policy areas. The quantity and quality of data for poverty assessment

will undoubtedly improve in the medium term with the introduction of the NI FRS. This will still leave a gap in the identification and measurement of poverty, specifically the incorporation of a deprivation dimension. This can be addressed. But such data needs to be analysed to redress the current relative lack of poverty-related research in Northern Ireland, thus helping to make best use of evaluation and research data to strengthen the development and implementation of New TSN.

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Appendix A
The PSE Approach to Poverty Measurement:
Data Collection and Analysis

The process

The main task was to produce a measure of poverty based on:

- Socially perceived necessities.
- A 'scientific' definition of deprivation. The claim to a 'scientific' approach is based on the report's extensive use of a battery of statistical methods for selection of indicators and classification of people as 'poor' or 'not poor'.

There were three steps in the process.

First, a representative sample of the public were asked to indicate which items in a long list of ordinary household goods and activities they thought were necessities that no household or family should be without in British society.

Second, a representative sample was asked which items they already had and which they wanted but could not afford. Items defined as necessities by more than 50 per cent of the population but which were lacked because of a shortage of money were then used to determine deprivation.

Third, a poverty threshold was calculated. This involved the use of statistical procedures to define a deprivation score that statistically maximises the differences between 'poor' and 'not poor', and minimises the differences within these groups. The approach looked at both people's incomes as well as their deprivation levels (that is, lacking items perceived as necessary because could not afford these items).

Data Collection

The research used three sets of data:

- The 1998-99 General Household Survey (GHS) provided income and socio-demographic data and the basis for selecting participants in a follow-up survey (see below).
- The June 1999 ONS Omnibus Survey included questions that asked members of the public about items they considered to be necessities.

- A follow-up sub-sample survey of the GHS in September/October 1999 looked at how many people cannot afford the items identified as necessities and also looked at both poverty (e.g. qualitative views of participants on whether they had enough to live on) and social exclusion (e.g. participation in, and access to, a range of public and private services) in greater depth.

It should be noted that this data collection strategy is feasible for Northern Ireland. There already exists a NI Omnibus Survey and the CHS is the NI equivalent of the GHS.

The approach used to determine how many people are poor

The items viewed as 'necessities' from the survey described above (see Table A.1) were subjected to statistical analysis to determine which of these could be used as statistically reliable and valid definitions of poverty. Four items were dropped because there was little evidence that they were either valid or reliable. The remaining items were then subjected to further statistical analysis. The results suggested that an enforced lack of two necessities and a low income best discriminated between being 'poor' and 'not poor'.

Given the results of the statistical analysis, people were considered to be 'poor' if there were at least two socially defined necessities that they were unable to afford.

The authors also introduced two further refinements, based on relationships between deprivation of necessities and incomes:

- Some people were unable to afford two necessities but had relatively high incomes. These people were classified as having risen out of poverty recently. For example, they had obtained a job but had not yet been able to buy all the 'necessities'.
- Some people did not lack two or more necessities, but had relatively low incomes. These were classified as being vulnerable to poverty. For example, they may have recently seen their incomes fall through losing a job, but have not yet lost some of the items perceived to be necessities.

In total, then, four groups were identified:

- The 'poor'. According to the PSE survey results, 25.6 per cent of people in Great Britain were 'poor' at the time of the survey.
- Those 'vulnerable' to poverty. Just over one in ten were classified to this group.
- Those who 'have recently risen out of poverty'. These accounted for just under two per cent.
- Those who are 'not poor' – 62.2 per cent were classified into this group

Table A.1: Perception of adult necessities: % perceiving item or activity as necessity (Italicised items identify those included in the deprivation index)

	Necessary	Desirable	D/K
Beds and bedding for everyone	95	4	
<i>Heating to warm living areas</i>	94	5	
<i>Damp free home</i>	93	6	1
<i>Visiting friends or family in hospital</i>	92	7	1
<i>Two meals a day</i>	91	9	1
<i>Medicines prescribed by doctor</i>	90	9	1
Refrigerator	89	11	1
<i>Fresh fruit and vegetables daily</i>	86	13	1
<i>A warm waterproof coat</i>	85	14	1
<i>Replace broken electrical goods</i>	85	14	2
<i>Visits to friends or family</i>	84	15	1
<i>Celebrations of special occasions</i>	83	16	2
<i>Money to keep home decorated</i>	82	17	1
<i>Visits to school e.g. sports day</i>	81	17	2
<i>Attending weddings, funerals</i>	80	19	1
<i>Meat, fish or vegetarian equiv</i>	79	19	1
<i>Insurance of contents of dwelling</i>	79	20	1
<i>A hobby or leisure activity</i>	78	20	1
A washing machine	76	22	1
<i>Collect children from school</i>	75	23	3
<i>Telephone</i>	71	28	1
<i>Appropriate clothes for job interviews</i>	69	28	2
<i>Deep freezer/fridge freezer</i>	68	30	2
<i>Carpets in living rooms and bedrooms</i>	67	31	2
<i>Regular savings for rainy days</i>	66	32	2
<i>Two pairs of all weather shoes</i>	64	34	2
<i>Friends or family round for a meal</i>	64	34	2
<i>Money to spend on self weekly</i>	59	39	2
A television	56	43	2
<i>A roast joint/vegetarian equivalent weekly</i>	56	41	3
<i>Presents for friends / family yearly</i>	56	42	2
<i>A holiday away from home</i>	55	43	3
<i>Replace worn out furniture</i>	54	43	3
<i>A dictionary</i>	53	44	3
<i>An outfit for social occasions</i>	51	46	3
New, not second hand, clothes	48	49	3
Attending place of worship	42	55	4
A car	38	59	3
Coach/train fares to visit friends/family	38	58	4
An evening out once a fortnight	37	56	3
A dressing gown	34	63	4
Having a daily newspaper	30	66	4
A meal in a restaurant/pub monthly	26	71	4
Microwave oven	23	73	4
Tumble dryer	20	75	4
Going to the pub once a fortnight	20	76	4
A video cassette recorder	19	78	3
Holidays abroad once a year	19	77	4
CD player	12	84	4
A home computer	11	85	4
A dishwasher	7	88	5
Mobile phone	7	88	5
Access to the internet	6	89	5
Satellite television	5	90	5

Appendix B
The Lifestyle and Deprivation
Items in the ESRI Study

Table B.1 Lack, Enforced Lack and Perceived Necessity of Lifestyle Items in 1987 and 1997

Item	% Lacking		% Enforced Lack		% Stating Necessity	
	1987	1997	1987	1997	1987	1997
Refrigerator	5	1	3	1	92	99
Washing Machine	20	10	10	4	82	93
Telephone	48	14	31	9	45	82
Car	38	30	22	13	59	70
Colour TV	20	3	11	1	37	75
A week's annual holiday away from home	68	45	49	32	50	62
A damp free dwelling	10	6	9	6	99	99
Heating for the living room when its cold	3	6	2	5	99	99
Central heating in the house	45	17	30	10	49	81
An indoor toilet in the dwelling	7	2	6	2	98	99
Bath or Shower	9	3	7	2	98	99
A meal with meat, chicken or fish every second day	13	3	9	2	84	94
A warm waterproof overcoat	13	4	8	2	93	93
Two pairs of strong shoes	16	5	11	4	88	96
To be able to save	57	38	55	34	88	82
A daily newspaper	45	43	16	9	39	33
A roast meat joint or equivalent once a week	24	11	13	4	64	76
A hobby or leisure activity	33	26	12	8	73	70
New not second hand clothes	10	8	8	6	77	86
Presents for friends or family once a year	24	11	13	6	60	73

Table B.2 Factor solution for lifestyle deprivation items (Nolan and Whelan, 1996: 88)

	Basic lifestyle deprivation	Secondary lifestyle deprivation	Housing/ household capital deprivation
Basic items			
Go without heat	0.81	0.33	0.11
Go without substantial meal	0.89	0.09	0.20
Arrears/debt	0.76	0.25	0.04
New not second-hand clothes	0.74	0.30	0.29
Meal with meat/chicken/fish	0.74	0.30	0.40
Warm waterproof overcoat	0.76	0.16	0.42
Two pairs of strong shoes	0.75	0.25	0.38
Roast or equivalent weekly	0.73	0.33	0.25
Secondary items			
Annual holiday away from home	0.39	0.69	0.01
Able to save regularly	0.49	0.54	0.18
Daily newspaper	0.48	0.50	0.11
Telephone	0.25	0.65	0.28
Hobby or leisure activity	0.59	0.44	0.08
Central heating	0.19	0.59	0.40
Present for friends/family yearly	0.58	0.44	0.20
Car	0.26	0.60	0.20
Afford afternoon/evening out	0.43	0.38	0.08
Housing items			
Bath or shower	0.17	-0.01	0.99
Indoor toilet	0.16	-0.01	0.98
Washing machine	0.02	0.46	0.63
Refrigerator	0.26	0.23	0.62
Colour TV	0.21	0.30	0.53
Dry damp free dwelling	0.27	0.30	0.47
Heating for the living room	0.48	0.25	0.30

Appendix C
Family Type and Economic Status:
Definitions used in HBAI

Family Type

Individuals classified according to the status of the benefit unit in which they live, as follows:

- *Single pensioner* – a single adult of state pension age or over.
- *Pensioner couple* – a couple, where the man of the benefit unit is of state pension age or over.
- *Couple with children* – a non-pensioner couple with dependent children.
- *Couple without children* – a non-pensioner couple with no dependent children.
- *Single with children* – a non-pensioner single adult with dependent children.
- *Single without children* – a non-pensioner single adult with no dependent children.

Economic status

Individuals allocated to the **first** category which applies in the following order:

- *Self-employed* – benefit units where at least one adult works self-employed in his/her main job for 31 or more hours per week.
- *Single or couple, all in full-time work* – benefit units where all adults usually work 31 or more hours a week.
- *Couple, one in full-time work, one in part-time work* – benefit units headed by a couple, where one partner usually works 31 or more hours a week and the other partner usually works fewer than 31 hours a week.
- *Couple, one in full-time work, one not working* – benefit units headed by a couple, where one partner usually works 31 or more hours a week and the other partner does not work.
- *One or more in part-time work* – benefit units where at least one adult works, but for fewer than 31 hours a week.
- *Head or spouse aged 60 or over* – benefit units where at least one adult is aged 60 or over.

- *Head or spouse unemployed* – benefit units where at least one adult is unemployed.
- *Others* – benefit units not classified above (this group includes the long-term sick, disabled people and non-working single parents).

Appendix D
Thematic Indicator Sets and NI Data Availability

Thematic indicators published in *Monitoring Poverty and Social Exclusion 2000* (Rahman *et al*)

Indicator	Measure	Theme/relevance	Main data sources	Comment
Poverty and Low Income				
1	Gap between low and median income	Inequality measure	HBAI	Not yet available in NI
2	Individuals with low income	Income threshold measure	HBAI	Not yet available in NI
3	Intensity of low income	Very low incomes	HBAI	Not yet available in NI
4	In receipt of means-tested benefit	Trends in low incomes	DSS Client Group Analysis	Not published, but can be obtained from DSD
5	Long-term recipients of benefit	Persistence of low income	Unpublished DSS administrative data	Can be obtained from DSD
6	Periods of low income	Persistence of low income	British Household Panel Survey (BHPS)	Not yet available in NI
7	The location of low income	Profile by location	DSS Client Group analysis	DSD can provide ward-level data
Children				
8	Living in workless households	Risk of poverty	LFS	Available for NI
9	Living in households with below half-average income	Relative income measure	HBAI	Not yet available in NI. Proxy using FSM?
10	Low birth-weight babies	Health inequalities	Admin data (limited adequacy)	Problematic

Thematic indicators published in *Monitoring Poverty and Social Exclusion 2000* (Rahman *et al*)

Indicator	Measure	Theme/relevance	Main data sources	Comment
11	Accidental deaths	Health and well-being	Admin data	General Registrar's Office
12	Low attainment at school	Education	Examination Databases	DE
13	Permanently excluded from school	Education	Admin data - medium adequacy	Need a better indicator
14	Children whose parents divorce	Social stability	Admin data – limited adequacy	Relevance unclear
15	Births to girls conceiving under age 16	Social stability	Admin data	Available in NI – General Registrar's Office
16	In young offender institutions	Social stability	Prison Statistics	
Young Adults				
17	Unemployment	Economic circumstances	LFS	Available for NI
18	On low rates of pay	Economic circumstances	LFS	Available for NI, but LFS data problematic re low pay. Sample size problems
19	Not in education, training or work	Economic circumstances	LFS	Small sample size for LFS. But monitored via 'status zero' surveys

Thematic indicators published in *Monitoring Poverty and Social Exclusion 2000* (Rahman *et al*)

Indicator	Measure	Theme/relevance	Main data sources	Comment
20	Problem drug use	Health and well-being	DH Statistical Bulletin. Limited adequacy	
21	Suicide	Health and well-being	Admin data	GRO
22	Without a basic qualification	Barriers to work	LFS (UK).	Sample size issue
23	With a criminal record	Barriers to work	ONS; Home Office Prison Statistics	
24	Individuals wanting paid work	Economic circumstances	LFS (UK)	Available for NI
25	Households without work for two years or more	Economic circumstances	LFS (UK)	Available for NI
26	On low rates of pay	Disadvantaged at work	LFS (UK)	Available for NI. But LFS problematic for low pay.
27	Insecure at work	Disadvantaged at work	JUVOS LFS for number on temporary contracts	Available for NI – DETI longitudinal database
28	Without access to training	Disadvantaged at work	LFS (UK).	Available for NI
29	Premature death	Health and well-being	ONS (EW); GRO (SC).	NISRA. Features in Noble.

Thematic indicators published in *Monitoring Poverty and Social Exclusion 2000* (Rahman *et al*)

Indicator	Measure	Theme/relevance	Main data sources	Comment
30 Obesity	% of working-age women, by social class	Health and well-being	DH Health Survey for England	
31 Limiting long-standing illness or disability	Number adults aged 45-64	Health and well-being	GHS (GB)	Available from CHS
32 Mental health	% of adults aged 16-64 at high risk	Health and well-being	DH Health Survey for England	NI Health and Wellbeing Survey
Older People				
33 No private income	Number relying on state pension alone	Economic circumstances	FRS (GB).	Not yet available. Alternative sources include FES and perhaps the CHS
34 Spending on 'essentials'	£ per week	Economic circumstances	FES	Available for NI
35 Excess winter deaths	Number dying in winter months compared to other months	Health and well-being	GB Mortality data, ONS.	NISRA/GRO Mortality data
36 Limiting long-standing illness or disability	Number aged 65+	Health and well-being	GHS (GB)	CHS
37 Anxiety	% feeling unsafe out at night	Health and well-being	Home Office, British Crime Survey	NI Crime Survey under way Autumn 2001
38 Help from social services to live at home	% helped to live at home by social services	Access to services	Department of Health/Local authorities	

Thematic indicators published in *Monitoring Poverty and Social Exclusion 2000* (Rahman et al)

Indicator	Measure	Theme/relevance	Main data sources	Comment
39	Without a telephone	Access to services	FES (UK)	Available for NI
Communities				
40	Non-participation in civic organisations	Social cohesion	BHPS (GB)	Not yet available.
41	Polarisation of work - Number not in paid work or FTET who do not participate in any social, political or community organisation	Social cohesion	DETR, Survey of English Housing	Available from NI HCS for selected years. Could also use CHS
42	Spending on travel - % of households in social housing where head of household is not in paid work	Social cohesion	FES	Available for NI
43	Without a bank or building society account - £ per week, by quintile of income distribution	Social cohesion	FRS (GB)	Not yet available.
44	Burglaries - Number (millions)	Crime & its costs	Home Office, British Crime Survey	Recorded burglaries available. Occasional CHS question.
45	Without household insurance - Number of households	Crime & its costs	Home Office, British Crime Survey; FES	FES data
46	Dissatisfaction with local area - Households by income level	Crime & its costs	DETR, Survey of English Housing	NI HCS, occasional years.
47	Without central heating - Per cent of households	Housing	FES (UK)	Available for NI

Thematic indicators published in *Monitoring Poverty and Social Exclusion 2000* (Rahman et al)

Indicator	Measure	Theme/relevance	Main data sources	Comment
48	Overcrowding	Housing	GHS (GB)	CHS; NIHE HCS, occasional years.
49	Households in temporary accommodation	Housing	DETR Homelessness bulletin	NIHE
50	Mortgage arrears	Housing	Council of Mortgage Lenders (UK)	UK coverage

Thematic indicators published in Opportunity for All One Year On: Making a Difference (Second Annual Report, DSS)

Indicator	Measure	Theme/relevance	Main data sources	Comment
Children and Young People				
1 Living in workless households	Per cent of children aged under 16	Risk of poverty	LFS	Available for NI
2 Living in low income households	Per cent of children below various thresholds of mean income	Relative income measure	HBAI	Not yet available in NI. Proxy using FSM?
3 Educational achievement 7 year-olds	Per cent of 7 year-olds in Sure Start areas achieving Level 1+ at Key Stage 2	Education - Break cycle of deprivation	Baseline under development	Sure Start Output and Performance Analysis
4 Educational achievement 11 year-olds	Per cent of 11 year-olds achieving Level 4+ at Key Stage 2	Education - Break cycle of deprivation	National Curriculum Assessments, Key Stage 2, DfEE	DE
5 Educational achievement 16 year-olds	Per cent of 16 year-olds with at least one GCSE at grade A*-G	Education - Break cycle of deprivation	DfEE Performance Tables	DE
6 Educational qualifications of 19 year-olds	Per cent of 19 year-olds with at least a level 2 qualification	Education - Break cycle of deprivation	Labour Force Survey	LFS is available, but may be sample size problems. Can pool years, but reduces trend aspect.
7 Truancies and exclusions from school	Proportion	Education - Break cycle of deprivation	DfEE School Census	DE?
8 Living in a home which falls below set standard of decency	Composite housing quality index	Housing – quality of life	English House Condition Survey	NIHE House Condition. Every five years. 1996 most recent. Index could be developed.

Thematic indicators published in Opportunity for All One Year On: Making a Difference (Second Annual Report, DSS)

Indicator	Measure	Theme/relevance	Main data sources	Comment
9	Accident rates	Health and well-being – quality of life	Hospital Episode Statistics, Dept of Health	DHSSPS?
10	16-18 year olds in learning (in education or training)	Economic circumstances – risk of poverty	School, college and trainee records	Status Zero/ Destinations Survey
11	Educational attainment of children looked after by local authorities	Young people at risk of poverty	Baseline from ad hoc survey. Future data collection under discussion	
12	Rate of conception for those aged under 18	Health and well-being	ONS Birth Statistics	General Registrars' Office
	Teenage parents not in education, employment or training	Young children at risk	LFS	LFS available, but sample size may be a problem
13	Re-registrations on Child Protection Register	Young people at risk	Form CPR1, Dept of Health	DHSSPS?
Working-age Adults				
14	Employment rate	Economic circumstances	LFS	Available for NI, 1984-present
15	Workless households	Economic circumstances	LFS	Available for NI. LFS Household data set
16	Long-term recipients of benefit	Persistence of low income	Unpublished DSS administrative data	Can be obtained from DSD

Thematic indicators published in Opportunity for All One Year On: Making a Difference (Second Annual Report, DSS)

Indicator	Measure	Theme/relevance	Main data sources	Comment
17	Employment rate of disadvantaged groups	Social inclusion	LFS	Available for NI, but may need to pool data to address sample size issues
18	Living in low income households	Relative income measure	HBAI	Not yet available in NI.
19	Qualifications	Access to work/lifelong learning	LFS	Available for NI
20	People sleeping rough	Housing/social inclusion/vulnerability	DETR, Housing Investment Programme – single night street counts	
21	Drug use amongst young people aged 16-24	Health and well-being/vulnerability	British Crime Survey	
22	Adult smoking	Health and well-being	GHS	Available in NI - CHS
23	Death rates from suicide and undetermined injury	Health and well-being	ONS – death registrations	Available for NI - GRO
Older People				
24	Working-age people contributing to a non-State pension	Economic circumstances	FRS (GB).	Not yet available.

Thematic indicators published in *Opportunity for All One Year On: Making a Difference (Second Annual Report, DSS)*

Indicator	Measure	Theme/relevance	Main data sources	Comment
25	Amount contributed to non-State pensions	Economic circumstances	ONS, MQ5 publication	UK variable
26	Working-age people contributing to a non-State pension	Economic circumstances		
27	Living in low income households	Relative income measure	HBAI	Not yet available in NI.
28	Living in a home which falls below set standard of decency	Housing – quality of life	English House Condition Survey	NIHE House Condition. Every five years. 1996 most recent. Index could be developed.
29	Fear of crime	Social inclusion/vulnerability	British Crime Survey	NI Crime Survey under way Autumn 2001
30	Life expectancy at age 65	Health and Well-being	ONS. Headline indicator in UK Sustainability Development Strategy	Mortality rates from major killers should be available from GRO
31	Being helped to live independently	Access to services	DH Key Statistics return for Personal Social Services	DHSSPS

Thematic indicators published in Opportunity for All One Year On: Making a Difference (Second Annual Report, DSS)

Indicator	Measure	Theme/relevance	Main data sources	Comment
Communities				
32 Employment rate differentials	Percentage points difference between the most deprived local authorities and overall employment rate	Economic circumstances	Under development	Should be available for NI – have NI Measures of Deprivation and unemployment statistics (claimant count or LFS) for District Councils
33 Burglary rate differentials	Percentage points difference between the most deprived local authorities and overall employment rate	Social inclusion/vulnerability	Under development	Recorded rates included in Social Environment domain of NI Measures of Deprivation
34 Families living in a home which falls below set standard of decency	Composite housing quality index (under development)	Housing – quality of life	English House Condition Survey	NIHE House Condition. Every five years. 1996 most recent. Index could be developed.
35 Educational achievement differentials	Number of Local Authorities where fewer than a set percentage of pupils achieve level 4 in Key Stage 2 maths and English	Education – narrowing the attainment gap	Proposed indicator – being developed	DE?
36 Health gaps	Gaps for children and socio-economic groups between most deprived areas and rest of country	Health and well-being	Proposed indicator – being developed	

Appendix E
People Living in Households with Incomes
in the Bottom 30 per cent of the Income Distribution

Table E.1 All individuals living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	'000s	Per cent	Per cent	Per cent
All individuals	509	30	100	100
Economic status of adults in family				
Working full-time	133	14	26	58
Working part-time	61	52	12	7
Not working	293	54	58	32
Not known	22	42	4	3
Receipt of benefit				
Main benefit				
Yes	303	57	60	31
No	206	18	40	69
Means-tested benefit (CHS)				
Yes	253	71	50	21
No	256	19	50	79
Adjusted for DSD count of claimants and dependents				
Yes	337	71	66	28
No	172	14	34	72
Tenure				
Owned outright	97	24	19	24
Owned w/mortgage	121	15	24	48
Private rented	50	50	10	6
Public rented	241	65	47	22
Religion				
Catholic	211	39	41	32
Protestant	191	25	38	45
Other/None	10	16	2	4
Not known	96	29	19	20
Dependent children in household				
None	173	25	34	41
One	68	24	13	17
Two	96	27	19	21
3+	171	47	34	21

Table E.1 continued

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	<i>'000s</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Age of youngest dependent child				
None	178	25	35	42
0-4	152	38	30	24
5-11	113	32	22	21
12-15	52	33	10	9
16-18	14	19	3	4
Age group				
0-15	158	38	31	24
16-24	80	37	16	13
25-34	57	22	11	15
35-44	60	25	12	14
45-54	47	24	9	11
55-64	35	22	7	9
65-74	34	28	7	7
75+	38	38	7	6
Area Health Board				
Eastern	195	28	38	42
Northern	119	27	23	26
Southern	82	31	16	16
Western	112	39	22	17
NUTS III regions				
Belfast	114	38	22	18
Outer Belfast	68	17	13	24
East of NI	108	26	21	24
North of NI	80	34	16	14
West & South of NI	139	40	27	21
Employment status of the household				
1 worker	146	32	29	27
2 workers	57	10	11	35
3 workers	31	19	6	9
No workers – hoh ⁶ retired	78	32	15	14
No workers - hoh sick/disabled	49	58	10	5
No workers - hoh unemployed	41	98	8	2
No workers – other	92	93	18	6
Not known	14	67	3	1

Table E.1 continued

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	<i>'000s</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Socio-economic group				
Professional	3	4	1	4
Employer, manager	16	8	3	12
Intermediate non-manual	17	10	3	10
Junior non-manual	78	28	15	17
Skilled manual	117	31	23	22
Semi-skilled manual	148	44	29	20
Unskilled manual	44	47	9	5
No SEG reference, etc	85	50	17	10

Notes:

¹ Based on equivalised gross household income.

² Grossed-up survey results, weighted to reflect age and gender composition of NI population.

³ Risk ratio – Number in group below the 30 per cent threshold as a percentage of the total number in the group.

⁴ Concentration ratio – Number in group below the 30 per cent threshold as a percentage of all individuals below the 30 per cent threshold.

⁵ All individuals in the group as a percentage of all individuals.

⁶ Head of household.

Table E.2 Children living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	'000s	Per cent	Per cent	Per cent
All	181	38	100	100
Tenure				
Owned outright	15	26	8	12
Owned w/mortgage	50	18	28	58
Private rented	16	64	9	5
Public rented	99	83	55	25
Religion				
Catholic	83	50	46	35
Protestant	55	32	30	37
Other/None	3	18	2	4
Not known	40	35	22	24
Dependent children in household				
One	22	26	12	18
Two	48	29	27	35
3+	109	49	60	47
Age of head of benefit unit				
29 and under	36	64	20	12
30-44	110	35	61	66
45 and over	35	34	19	22
Area Health Board				
Eastern	71	37	39	41
Northern	38	33	21	24
Southern	30	40	17	16
Western	41	46	23	19
NUTS III regions				
Belfast	44	52	24	18
Outer Belfast	21	20	12	22
East of NI	37	33	20	23
North of NI	28	40	15	15
West & South of NI	49	48	27	22

Table E.2 continued

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	<i>'000s</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Employment status of the household				
1 worker	65	43	36	32
2 workers	19	9	11	43
3 workers	7	30	4	5
No workers – hoh ⁶ sick/disabled	16	89	9	4
No workers - hoh unemployed	16	100	9	3
No workers – other	52	96	29	11
Not known	4	80	2	1
Socio-economic group				
Professional	0	1	0	5
Employer, manager	6	9	3	14
Intermediate non-manual	4	12	2	7
Junior non-manual	24	45	13	11
Skilled manual	46	37	25	26
Semi-skilled manual	49	60	27	17
Unskilled manual	17	75	9	5
No SEG reference, etc	36	51	20	15

Notes:

¹ Based on equivalised gross household income.

² Grossed-up survey results, weighted to reflect age and gender composition of NI population.

³ Risk ratio – Number in group below the 30 per cent threshold as a percentage of the total number in the group.

⁴ Concentration ratio – Number in group below the 30 per cent threshold as a percentage of all individuals below the 30 per cent threshold.

⁵ All individuals in the group as a percentage of all individuals.

⁶ Head of household.

Table E.3 Working-age adults living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	'000s	Per cent	Per cent	Per cent
All individuals	269	26	100	100
Family type and number of children				
Couples				
No children	27	12	10	23
W/children	97	22	36	43
One child	19	13	7	14
Two children	28	17	10	16
Three or more	50	39	19	13
Single adult				
No children	94	34	35	27
W/children	50	70	19	7
One child	19	54	7	3
Two children	16	84	6	2
Three or more	15	88	6	2
Tenure				
Owned outright	42	21	16	20
Owned w/mortgage	77	14	29	56
Private rented	29	46	11	6
Public rented	121	64	45	19
Religion				
Catholic	111	35	41	31
Protestant	91	21	34	43
Other/None	6	15	2	4
Not known	61	27	23	22
Age of head of benefit unit				
24 and under	57	38	21	15
25-29	29	27	11	11
30-39	63	24	23	26
40-54	92	26	34	35
55 and over	29	21	11	13

Table E.3 continued

	Bottom 30 per cent of income distribution¹			All individuals⁵
	Number²	Risk ratio³	Concentration ratio⁴	
	<i>'000s</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Dependent children in household				
None	92	21	34	43
One	50	23	19	21
Two	52	26	19	20
3+	74	47	28	16
Age of youngest dependent child				
None	97	22	36	44
0-4	63	32	23	19
5-11	61	32	23	19
12-15	34	31	13	11
16-18	14	19	5	7
Age group				
16-24	80	37	30	21
25-34	57	22	21	25
35-44	60	25	22	23
45-54	47	24	17	19
55-64	25	22	9	11
Area Health Board				
Eastern	100	24	37	41
Northern	63	23	23	27
Southern	45	28	17	16
Western	61	36	23	16
NUTS III regions				
Belfast	61	36	23	17
Outer Belfast	33	13	12	24
East of NI	58	22	22	26
North of NI	44	32	16	13
West & South of NI	72	35	27	20

Table E.3 continued

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	<i>'000s</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Employment status of the household				
1 worker	80	27	30	29
2 workers	43	10	16	40
3 workers	26	18	10	14
No workers – hoh ⁶ retired	7	29	3	2
No workers - hoh sick/disabled	33	53	12	6
No workers - hoh unemployed	26	100	10	3
No workers – other	44	92	16	5
Not known	10	63	4	2
Socio-economic group				
Professional	2	5	1	4
Employer, manager	7	7	3	11
Intermediate non-manual	10	9	4	11
Junior non-manual	43	22	16	19
Skilled manual	56	27	21	20
Semi-skilled manual	75	39	28	19
Unskilled manual	20	43	7	5
No SEG reference, etc	57	46	21	12
Any adult with a longstanding illness/disability				
Yes	123	30	46	40
No	146	24	54	60
Age completed education				
Still in education	22	37	8	6
Less than 16	63	34	23	18
16	103	32	38	32
17-18	53	22	20	24
19+	15	9	6	17

Notes:

¹ Based on equivalised gross household income.

² Grossed-up survey results, weighted to reflect age and gender composition of NI population.

³ Risk ratio – Number in group below the 30 per cent threshold as a percentage of the total number in the group.

⁴ Concentration ratio – Number in group below the 30 per cent threshold as a percentage of all individuals below the 30 per cent threshold.

⁵ All individuals in the group as a percentage of all individuals.

⁶ Head of household.

Table E.4 Pensioners living in households in the bottom 30 per cent of gross household income, based on CHS data

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	'000s	Per cent	Per cent	Per cent
All individuals	81	33	100	100
Living arrangements				
Couples w/others	10	42	12	10
Couples alone	24	24	30	40
Singles w/others	7	28	9	10
Singles alone	40	40	49	41
Economic status of adults in family				
Working	2	33	2	2
Not working	79	33	98	98
Tenure				
Owned outright	44	30	54	59
Owned w/mortgage	2	13	2	6
Private rented	6	40	7	6
Public rented	29	41	36	29
Religion				
Catholic	26	37	32	29
Protestant	49	32	60	63
Other/None	0	0	0	2
Not known	5	31	6	6
Area Health Board				
Eastern	32	29	40	45
Northern	21	35	26	24
Southern	14	34	17	17
Western	14	40	17	14
NUTS III regions				
Belfast	13	25	16	21
Outer Belfast	16	26	20	25
East of NI	19	37	23	21
North of NI	11	35	14	13
West & South of NI	22	42	27	21

Table E.4 continued

	Bottom 30 per cent of income distribution ¹			All individuals ⁵
	Number ²	Risk ratio ³	Concentration ratio ⁴	
	<i>'000s</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Socio-economic group				
Professional	1	17	1	2
Employer, manager	4	17	5	9
Intermediate non-manual	3	14	4	8
Junior non-manual	13	33	16	16
Skilled manual	16	33	20	20
Semi-skilled manual	26	40	32	26
Unskilled manual	8	35	10	9
No SEG reference, etc	10	48	12	8
Any adult with a longstanding illness/disability				
Yes	55	31	68	73
No	26	38	32	27

Notes:

¹ Based on equivalised gross household income.

² Grossed-up survey results, weighted to reflect age and gender composition of NI population.

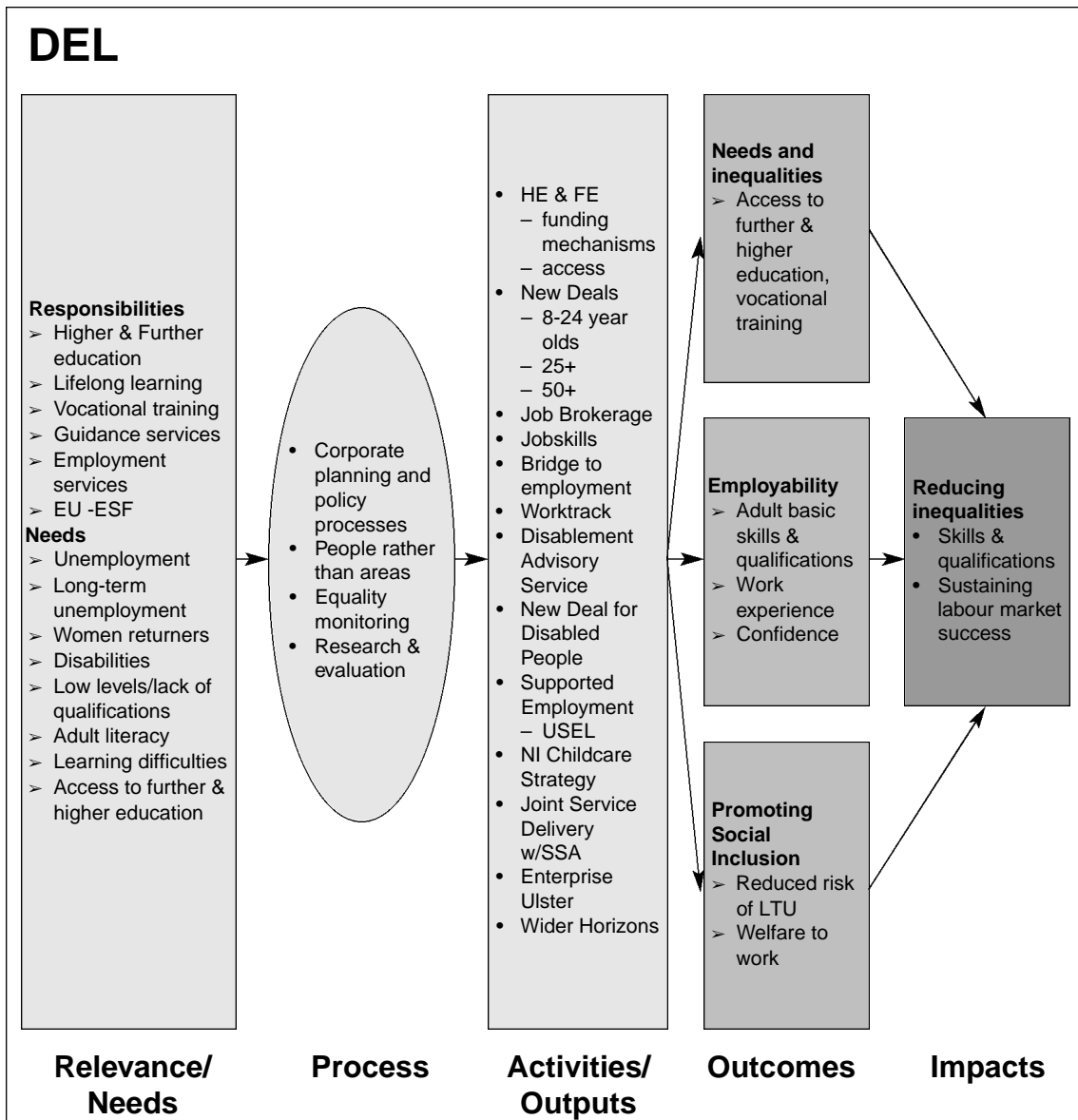
³ Risk ratio – Number in group below the 30 per cent threshold as a percentage of the total number in the group.

⁴ Concentration ratio – Number in group below the 30 per cent threshold as a percentage of all individuals below the 30 per cent threshold.

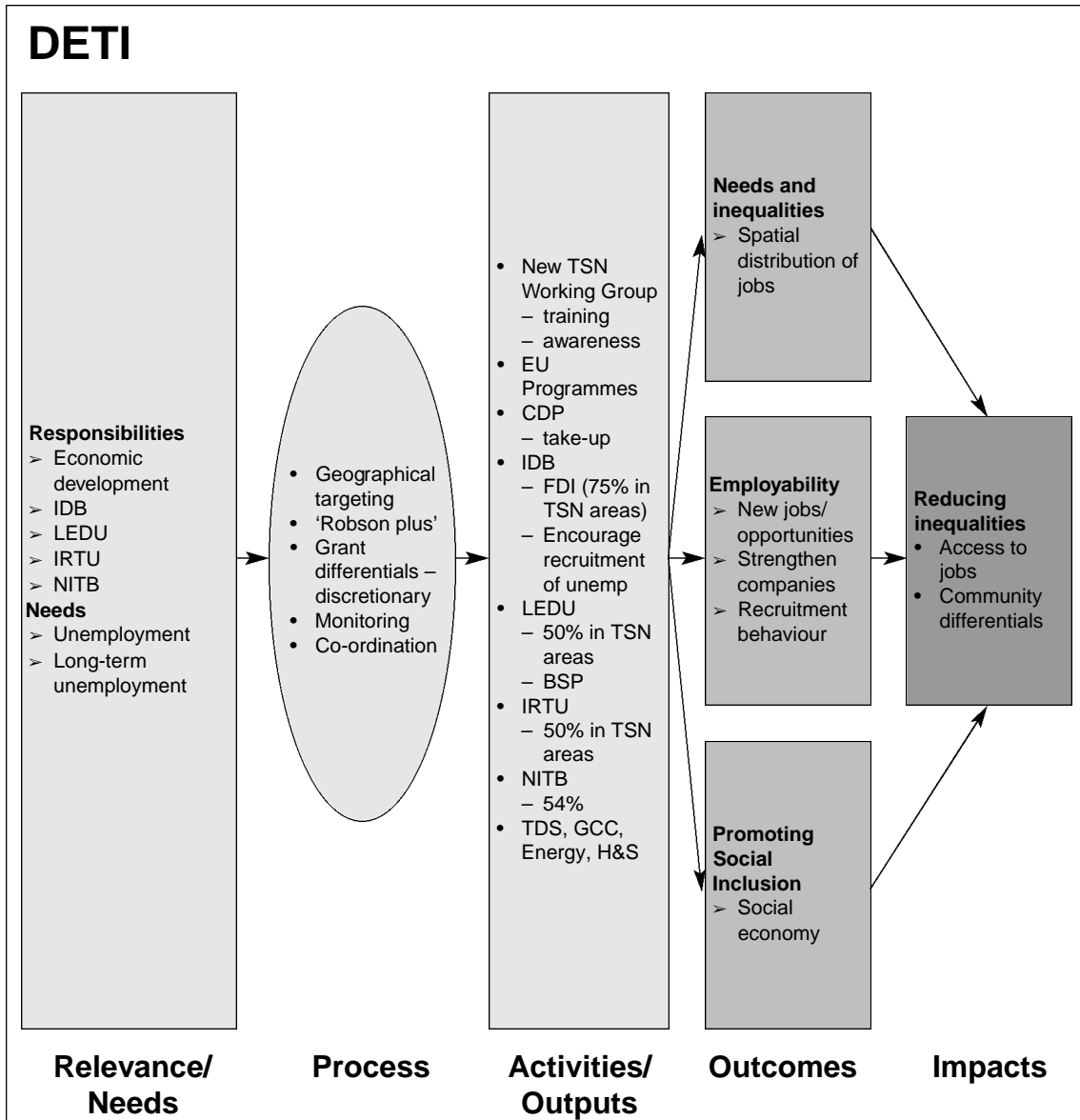
⁵ All individuals in the group as a percentage of all individuals.

Appendix F
Departmental New TSN Action Plans

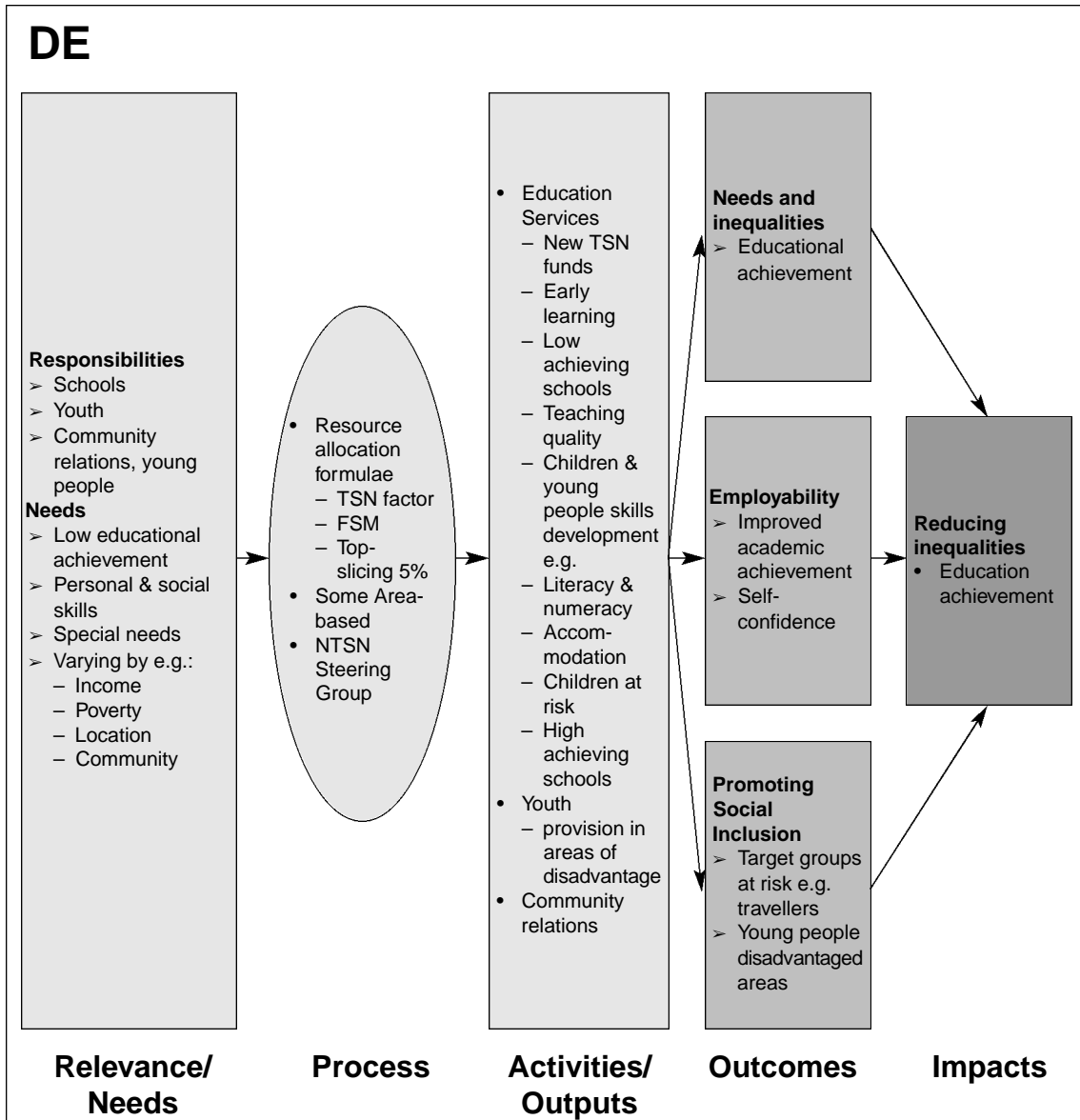
**Figure E.1 Department for Employment and Learning
New TSN Action Plan**



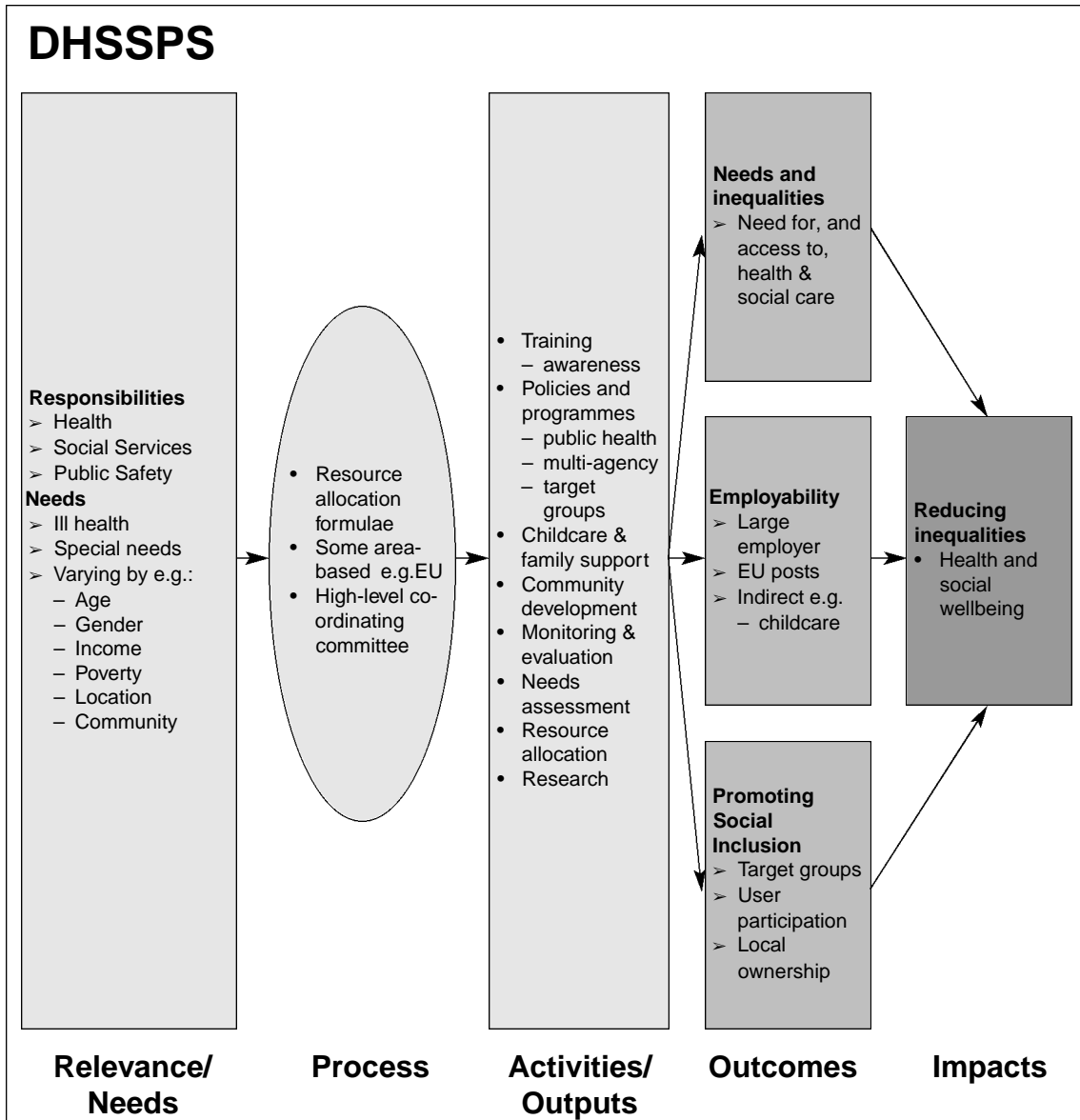
**Figure E.2 Department of Enterprise, Trade and Investment
New TSN Action Plan**



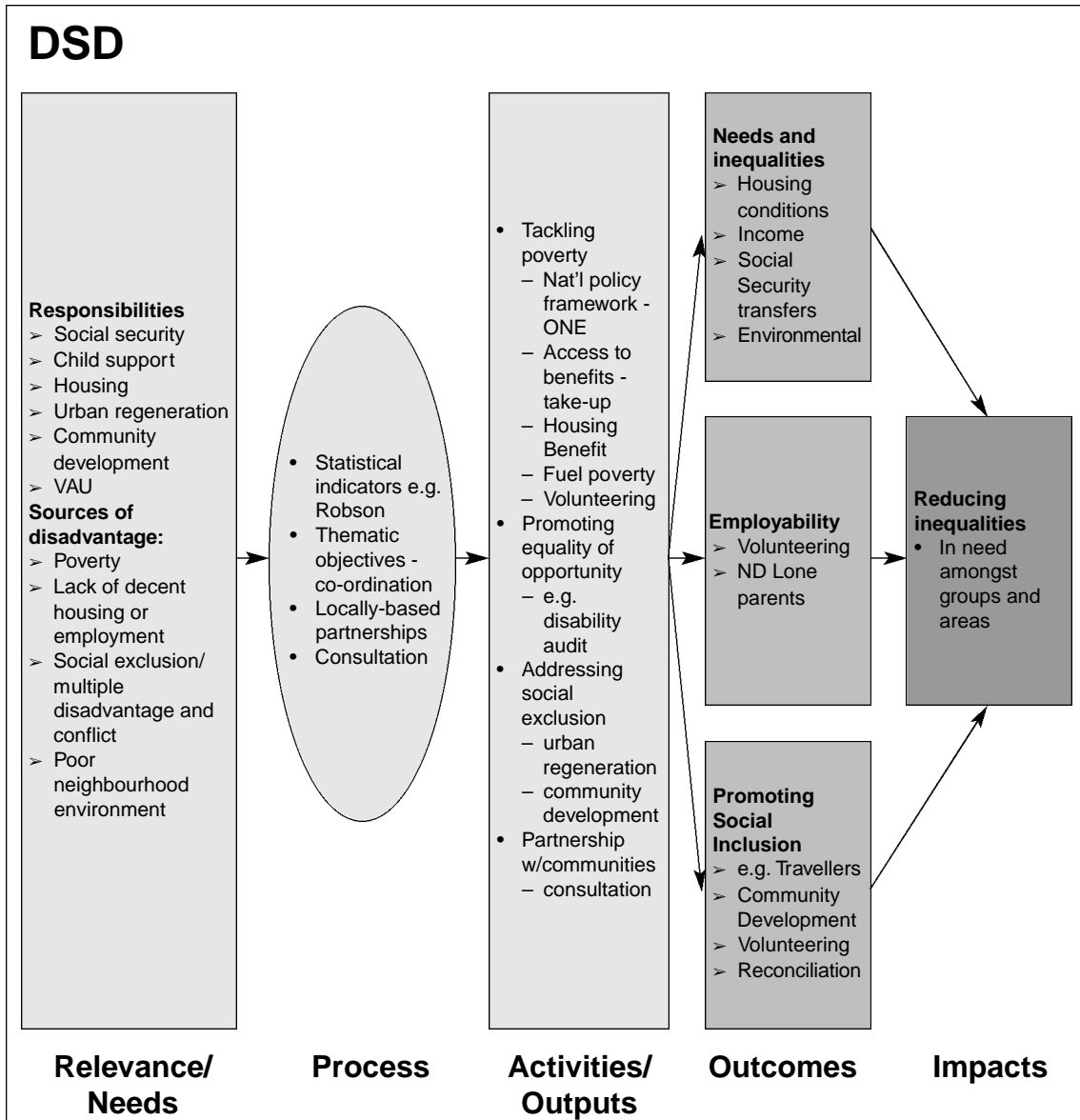
**Figure E.3 Department of Education
New TSN Action Plan**



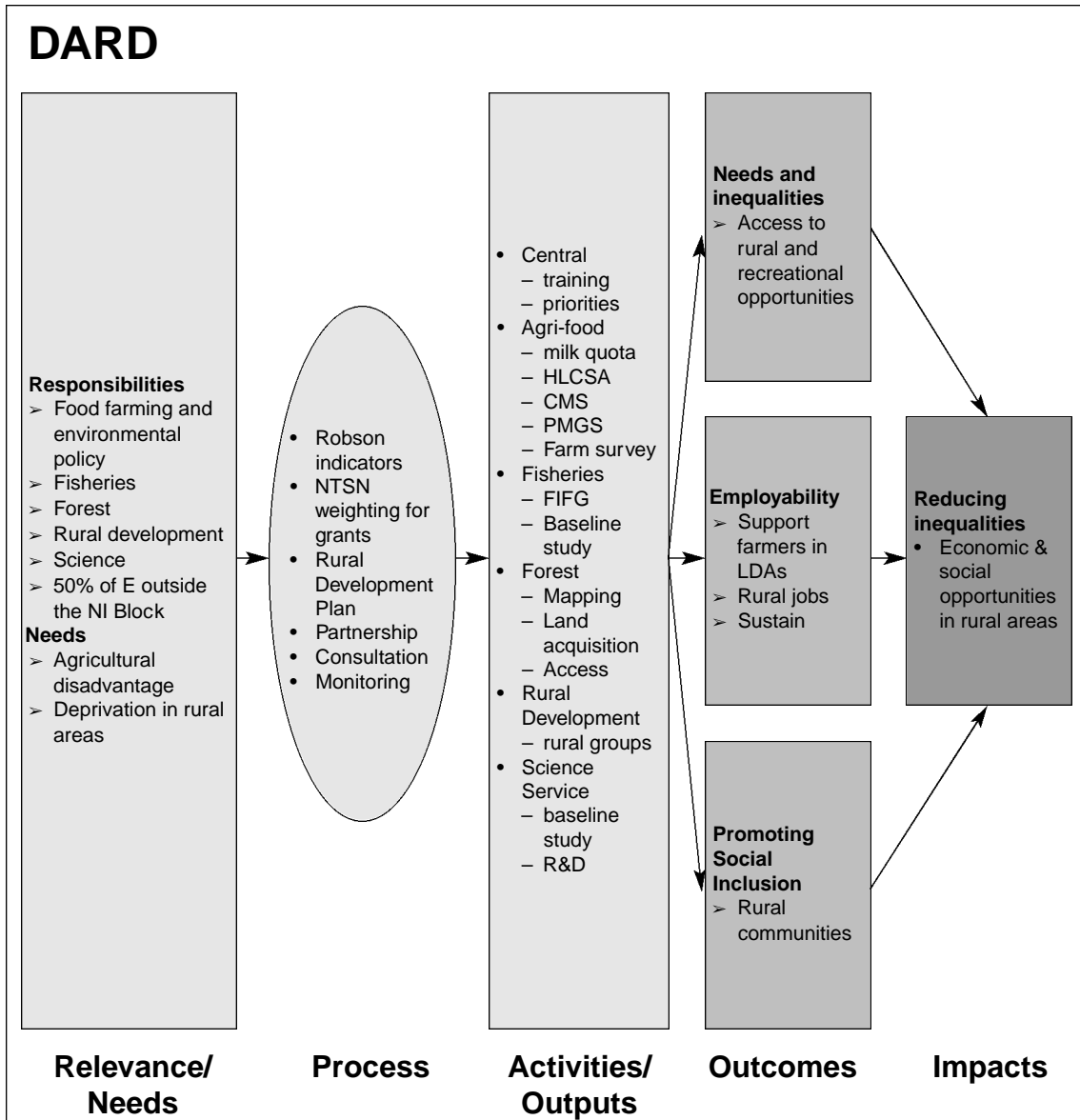
**Figure E.4 Department of Health, Social Services and Public Safety
New TSN Action Plan**



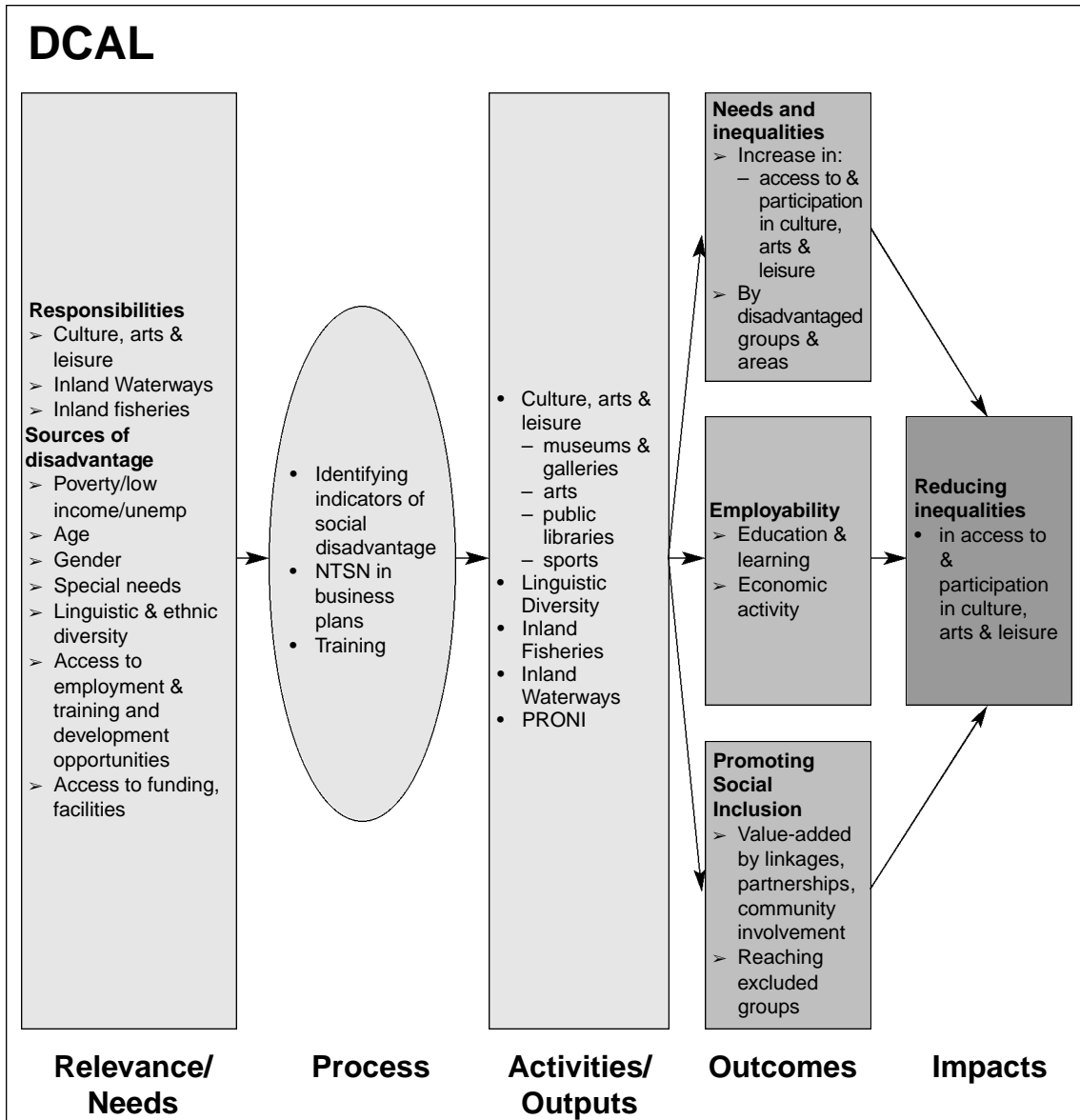
**Figure E.5 Department for Social Development
New TSN Action Plan**



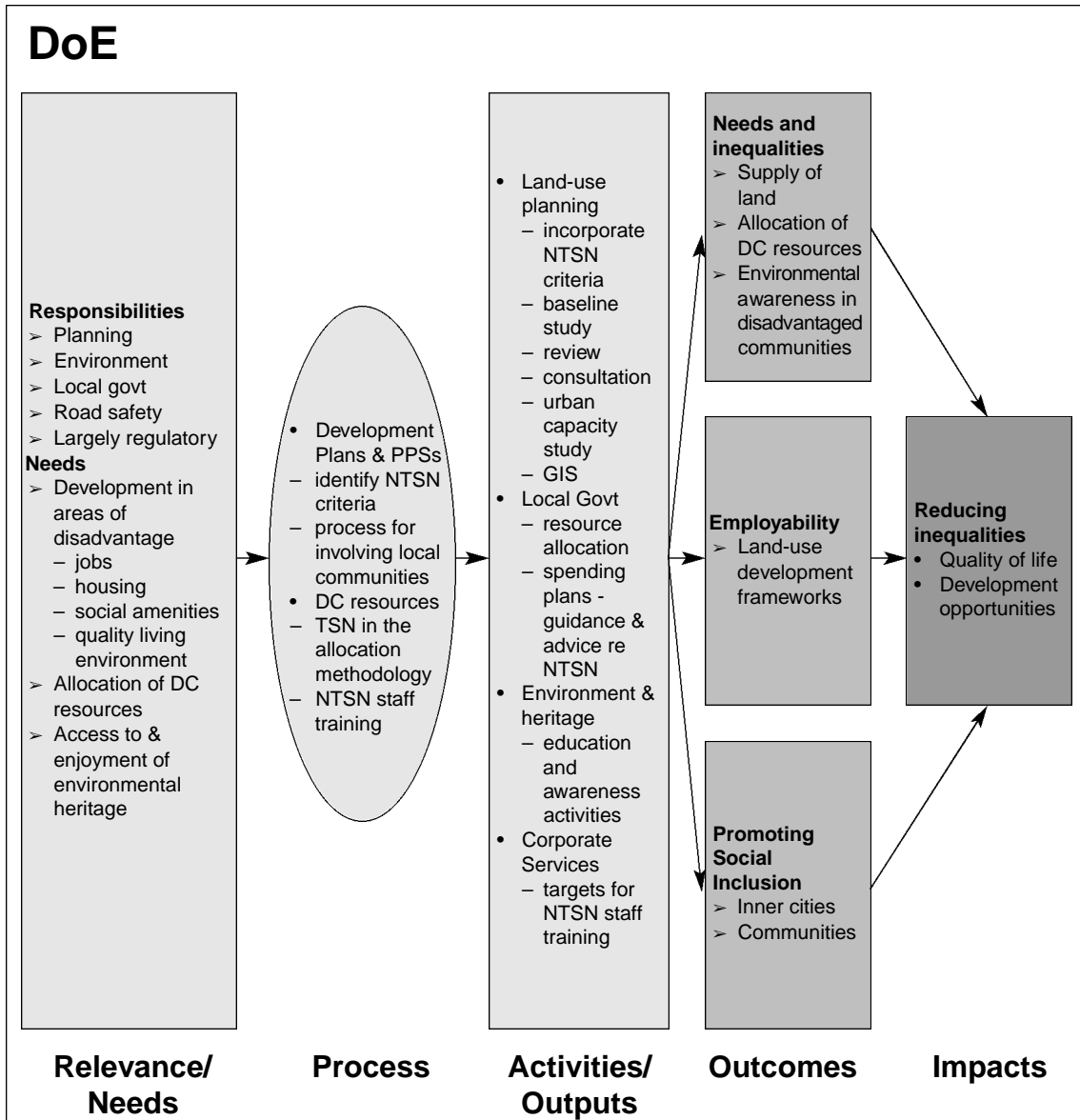
**Figure E.6 Department of Agriculture and Rural Development
New TSN Action Plan**



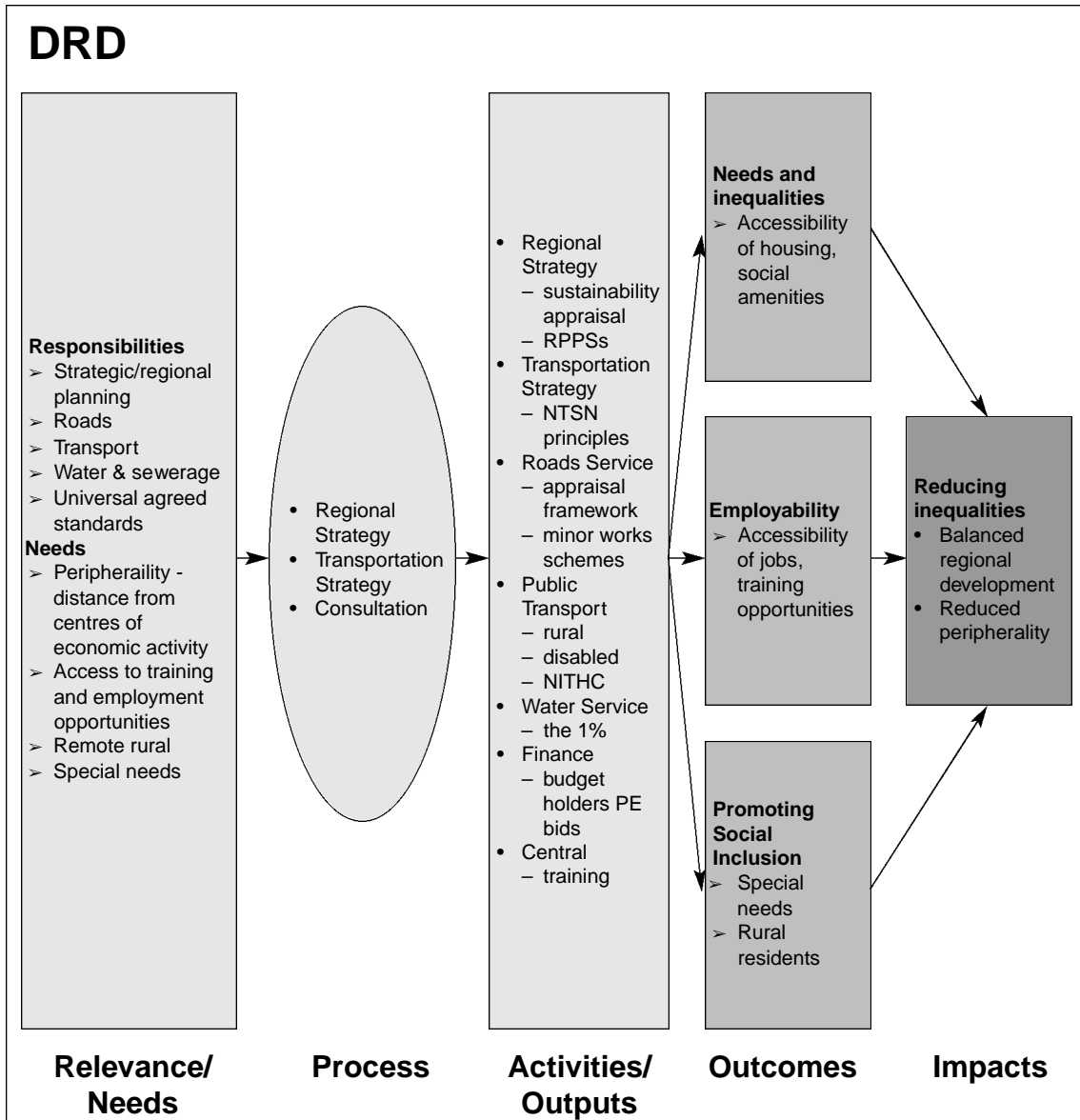
**Figure E.7 Department for Culture, Arts and Leisure
New TSN Action Plan**



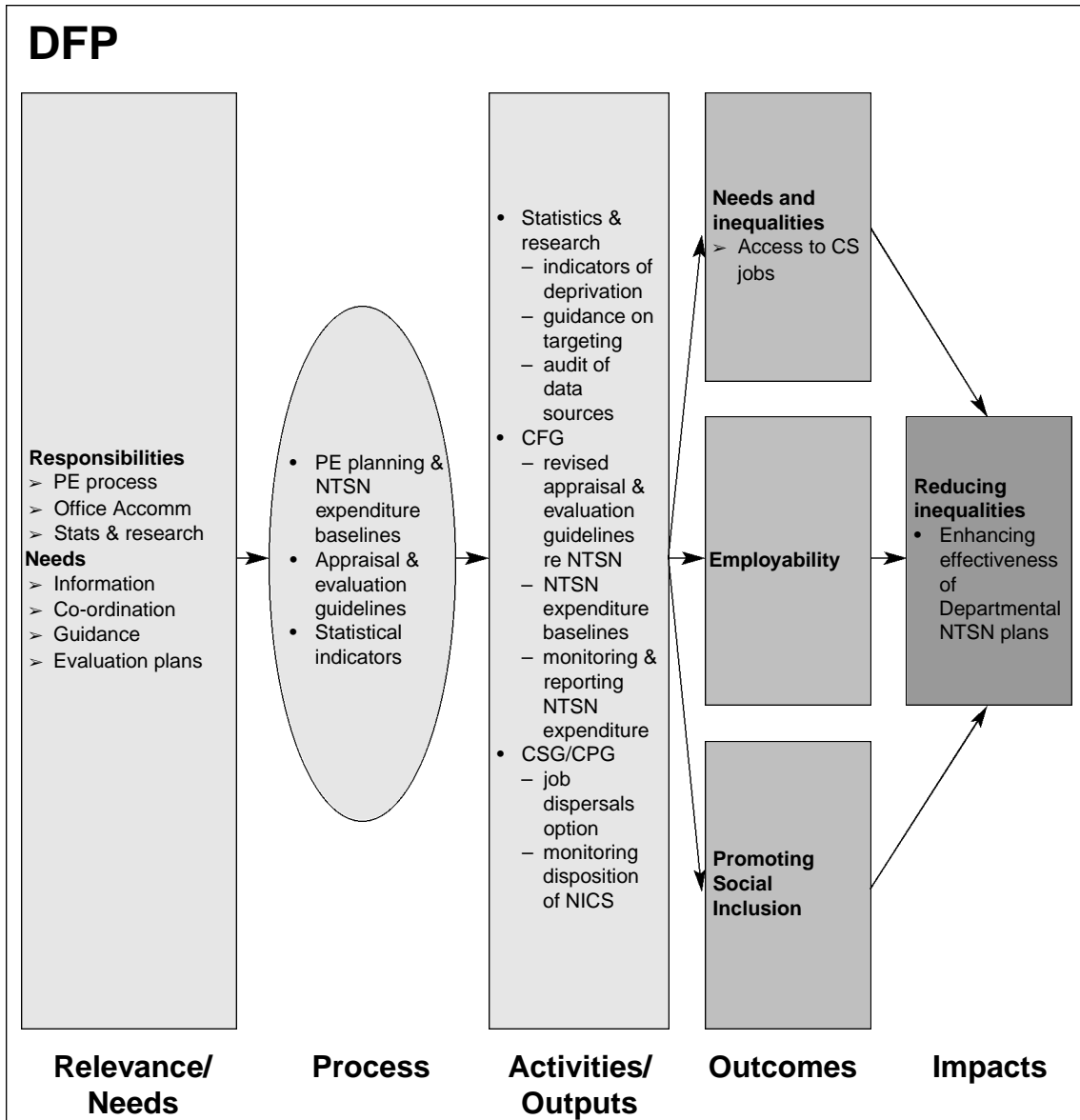
**Figure E.8 Department of the Environment
New TSN Action Plan**



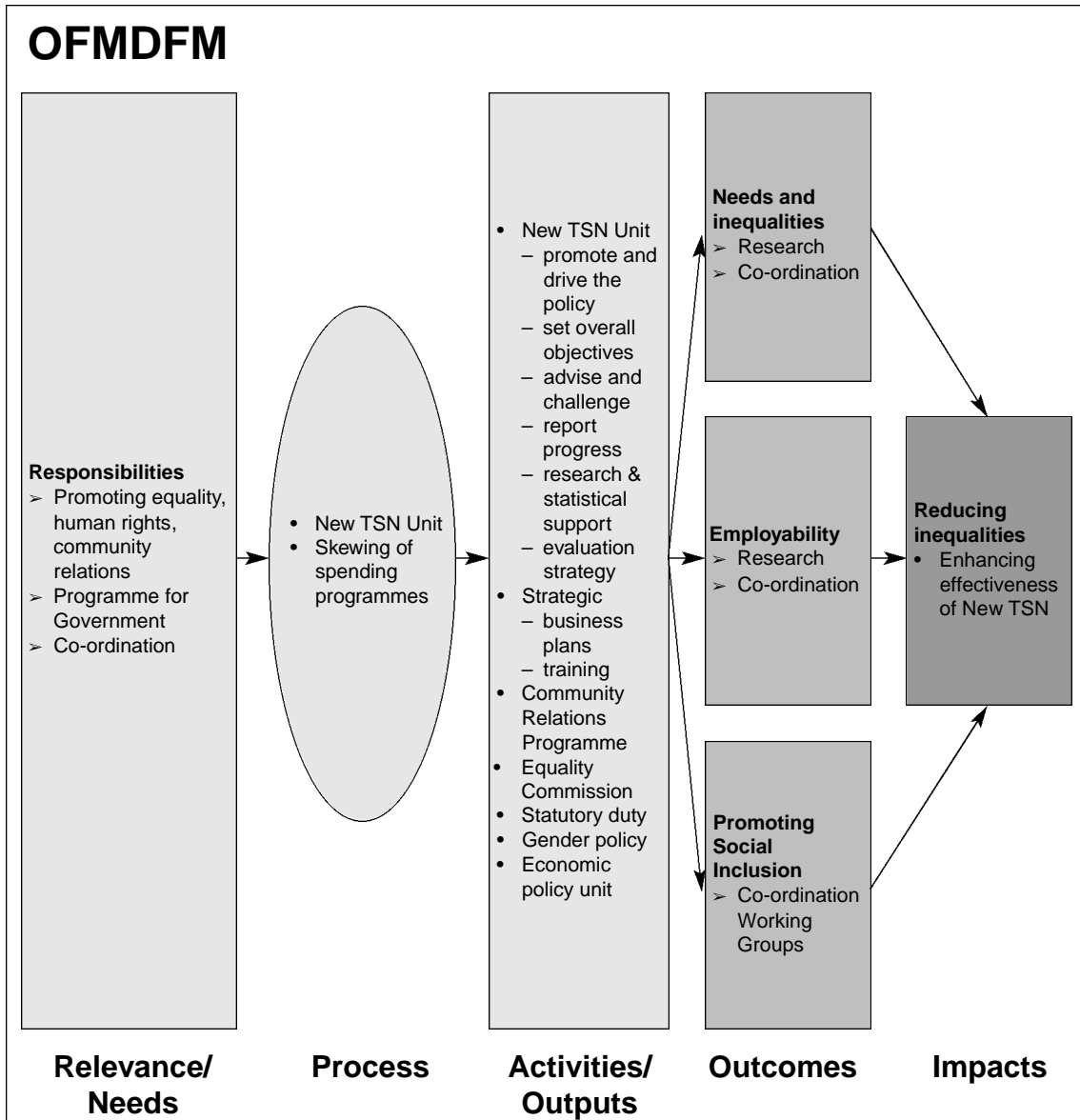
**Figure E.9 Department for Regional Development
New TSN Action Plan**



**Figure E.10 Department of Finance and Personnel
New TSN Action Plan**



**Figure E.11 Office of the First Minister and Deputy First Minister
New TSN Action Plan**



Endnotes

- ¹ The ILO (International Labour Organisation) definition of unemployment is a commonly accepted set of criteria for identifying unemployed people, that is, people without a job who are actively seeking work and available to start work in the following two weeks. It is generally preferred to the claimant count measure, that is, those claiming Jobseekers Allowance (JSA) at Social Security Offices (or, in some parts of Northern Ireland, joint SSA/T&EA Offices).
- ² The quarterly LFS does in fact contain a panel element. Individuals participating in the survey are interviewed in each of four successive quarters. Thus, in every survey round, one-fifth of the sample is comprised of a new set of respondents while the remainder of the sample will have been interviewed in the previous round. This does not, however, constitute a panel data set in the present context, as the indicators set out in the text are on an annual basis, that is, the average of four quarters.
- ³ That is, the International Labour Office measure of unemployment. This refers to people without a job who were available to start work in the two weeks following their LFS interview and had either looked for work in the four weeks prior to interview or were waiting to start a job they had already obtained.
- ⁴ Literacy in the ALS was not defined as something that people either have or do not have. Rather, it was defined as a range of skills related to:

Using printed and written information to function in society, to achieve one's goal and to develop one's knowledge and potential.

Three dimensions of literacy were measured. Prose literacy was defined as "the knowledge and skills required to understand and use information from texts such as passages of fiction and newspaper articles". Document literacy measured the ability to use and understand information in, for example, timetables. Quantitative literacy focused on arithmetic operations.

- ⁵ Similar findings were reported in respect of the remaining dimensions of literacy.

⁶ Some dimensions of this issue will be addressed by individual Departments. For example, DHSSPS lends support to a community development approach in reaching vulnerable groups. DCAL is explicitly committed to enhancing access to culture, arts and leisure facilities and will therefore have to address issues such as language barriers faced by ethnic minorities and circulation requirements for people with disabilities.

⁷ A local area is identified as having an *overall poor quality of living conditions* if any one or more of the following conditions holds for the local area:

- Over 10 per cent of dwellings in the local area are assessed to be *seriously defective*.
- The presence of one or more selected *major problems* (score of five). The types of problem selected are the same as those used in the English HCS index: vacant sites or derelict buildings; vacant or boarded up buildings; litter, rubbish or dumping; vandalism; graffiti or scruffy buildings, gardens or landscaping; neglected buildings.
- *Very poor visual quality* of the local area. The precise definition is not set out in the English HCS. Given the very few instances where local areas are assessed as 7 (= worst) on the visual quality score in the HCS, the index was specified to include any local area assessed as a 6 or a 7.

The overall quality of living conditions index for local areas in Northern Ireland is not strictly comparable to the English index, but interestingly they are quite similar for all dwellings, 5.6 per cent in Northern Ireland and 6.6 per cent in England.

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