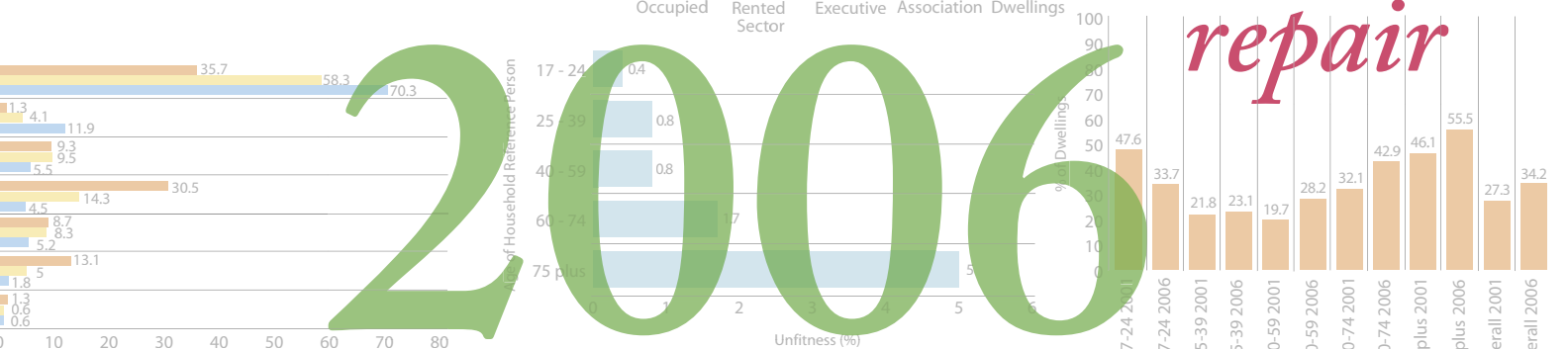
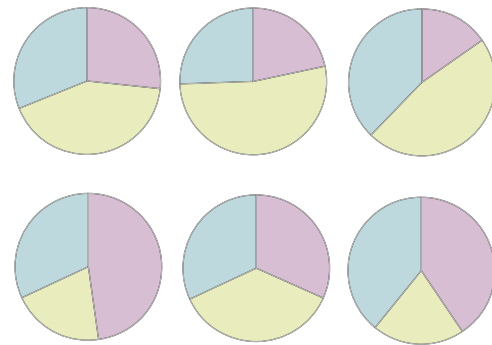
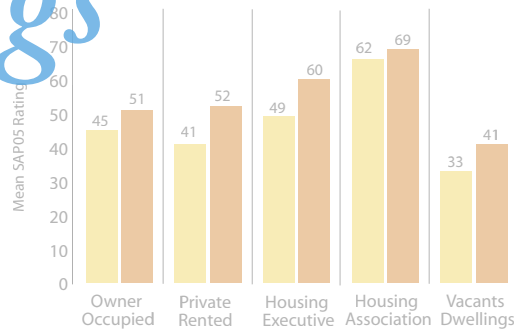
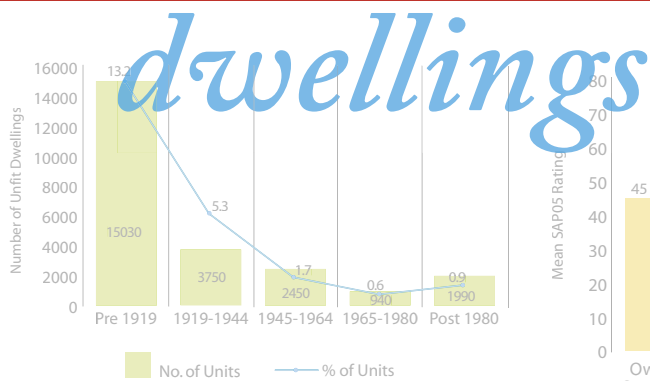


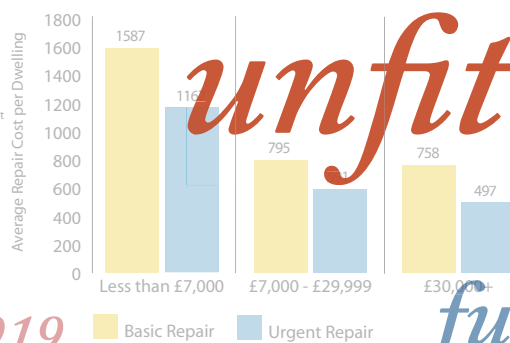
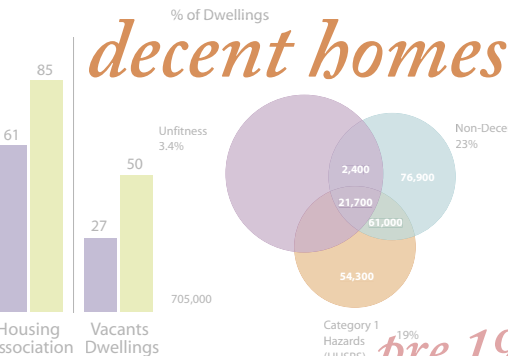
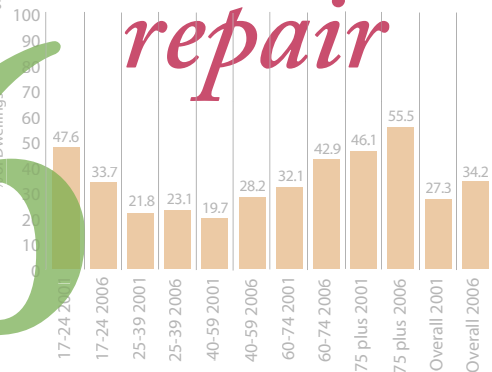
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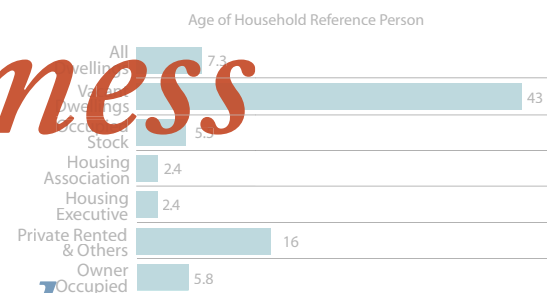
MAIN REPORT



repair



unfitness



fuel poverty

pre 1919

NORTHERN IRELAND

house condition survey 2006

MAIN REPORT

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Foreword

We are very pleased to introduce the final report from the 2006 House Condition Survey. The House Condition Surveys undertaken by the Northern Ireland Housing Executive represent our single most important sphere of research and provide a wealth of information for housing managers, policy makers, academics and the private sector. It also helps to guide the investment strategies which form the basis of the Minister's *New Agenda for Housing*.

The Housing Executive undertook its first House Condition Survey in 1974 when the level of unfitness was almost 20 per cent. The 2006 survey provides the robust evidence base which confirms the dramatic improvements made in housing conditions since the 1970s. In 2006 the rate of unfitness was down to 3.4 per cent.

One of the key lessons from the history of the Housing Executive is that investment in housing across all sectors is crucial to building successful communities and improving people's wellbeing. A large part of reducing unfitness has been the availability of consistent levels of funding to support a programme of improvement in our own stock and, through the Grants Scheme and Urban Renewal, in the private sector. It is essential to continue to invest in the quality of our homes for future generations. Experience shows that short term disinvestment in repair and maintenance is a false economy.

The House Condition Survey covers all tenures, including the owner-occupied sector, privately rented dwellings as well as social dwellings, provided by the Housing Executive and the housing associations. The most significant tenure-related finding emerging from the 2006 survey was the rapid growth in the private rented sector. In 2001 there were 49,400 (7.6%) privately rented dwellings in Northern Ireland. By 2006 this had risen to approximately 80,800 (11.5%), an increase of 31,400. Indeed if vacant properties (on the basis of tenure when last occupied) are included, the figure rises to 94,600 (13.4%), reflecting the very buoyant investor market during this five year period.



The Housing Executive undertook its first House Condition Survey in 1974 when the level of unfitness was almost 20 per cent. The 2006 survey provides the robust evidence base which confirms the dramatic improvements made in housing conditions since the 1970s. In 2006 the rate of unfitness was down to 3.8 per cent.

The House Condition Survey is the only survey which enables us to understand the inter-tenure dynamics of Northern Ireland's housing market. For example, the 2006 analysis of inter-tenure movement indicated that approximately 29,000 dwellings that were owner occupied in 2001 entered the private rented sector by 2006. In addition, 4,000 Housing Executive properties also moved into the private rented sector over this period, a further reflection of investor confidence.

The House Condition Survey is also the only survey which provides robust estimates of two very important Government measures. The 2006 survey confirms the steady progress being made in meeting the Decent Homes Standard. In 2001 32 per cent of Northern Ireland's dwellings failed to meet the Decent Home Standard. By 2006, this figure had fallen to only 23 per cent, primarily because of the huge investment in both the public and private sector in energy efficiency measures.

The 2006 survey also provides the most recent update on Fuel Poverty. In 2006, more than one-third (34%) of all households were in Fuel Poverty. This was already a significant increase from the revised 2001 figure, but does not take into account the huge escalation in fuel costs that we have experienced since 2006. It, however, still underlines

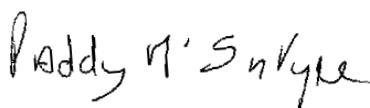
how the importance of investing in housing, modern heating systems and energy efficiency measures, so that people can feel safe and warm in their homes.

Preparations for the 2009 House Condition Survey are now underway. This survey will provide us with an insight into the plight of a growing number of households in Northern Ireland having to pay higher prices for their fuel, something which represents one of the most difficult social challenges facing Government today.

We are pleased to commend this document to you and trust you find the analysis it contains both informative and enlightening.



Brian Rowntree, Chairman



Paddy McIntyre, Chief Executive

1.1 Background

The Northern Ireland Housing Executive is the regional strategic housing authority for Northern Ireland. Its statutory responsibility in relation to housing research is set out in the Housing (NI) Order 1981. Article 6 states that the Housing Executive “shall regularly examine housing conditions and need” and “may conduct or promote research into any matter relating to any of its functions”.

This legislation provides the statutory basis for the 2006 House Condition Survey. It is the ninth such survey to be carried out in Northern Ireland since 1974. All tenures and types of housing are included, for example, owner occupied and rented housing, vacant dwellings, houses in multiple occupation, apartments, urban and rural.

The House Condition Survey provides a wealth of information, which is readily available to and is regularly requested by government departments, government agencies, the voluntary sector and many private sector interests.

1.2 Conduct of the Survey

Following the success of the 2001 and 2004 House Condition Surveys little has been changed in relation to the broad approach to the survey. The project management, design, administration, quality assurance analysis and report writing were the responsibility of the Housing Executive's Research Unit. Data collection was carried out by qualified surveyors and data input and validation was subcontracted to IPSOS/MORI.

Twenty-six fully qualified surveyors from a variety of professional backgrounds undertook the fieldwork: Environmental Health Officers, Chartered Surveyors and Chartered Architects. All but seven of the surveyors had worked on the 2001 Survey. Four Environmental Health Officers supervised the 26 surveyors, two of whom had been supervisors on the 2001 and 2004 Surveys.

The first training course was held in March 2006. This was conducted by staff from the Housing Executive's Research Unit, the Building Research Establishment (BRE) and by the HCS supervisors. The aim of the

training was to refresh the surveyors who had taken part in 2001/2004 with the survey form, introduce changes made to the form since 2004 and provide in-depth training on the HHSRS.

A second training course was held for the seven new surveyors. They received full training in England by DCLG (Department for Communities and Local Government previously ODPM) and BRE (The Building Research Establishment).

1.3 Survey Objectives

The key objectives for the 2006 Northern Ireland House Condition Survey are:

- 1 to provide a comprehensive picture of the dwelling stock and its condition in 2006 at District Council as well as Northern Ireland level;
- 2 to facilitate a comparative analysis of housing conditions in Northern Ireland with other parts of the United Kingdom;
- 3 to examine the association between dwelling conditions and the social and economic circumstances of households;
- 4 to examine changes in the condition of the stock over time;
- 5 to examine the impact of renovation grants in reducing unfitness;
- 6 to provide a reliable assessment of Fuel Poverty in Northern Ireland as a whole on a comparable basis with the rest of the United Kingdom.

1.4 The Survey Form

The 30 page survey form (See Appendix B) comprised four main blocks of questions covering:

- The physical attributes of each dwelling.
- The physical aspects of flats and common areas - to be completed only in the case of blocks of flats.
- Demographic, socio economic and attitudinal information on households - completed for successfully surveyed occupied dwellings with the agreement of a member of household.
- Information on the neighbourhood and area.

An additional survey form, as well as the main form, was completed for any dwelling found to be a house in multiple occupation (HMO).

Much of the content of the 2006 Survey form remained the same as in 2004. The main area of change was in relation to the Housing Health and Safety Rating System (HHSRS), due to ongoing revisions in England, it was decided to omit these questions from the 2004 Interim Survey but they were re-introduced into the 2006 Survey.

1.5 The Sample - Response Rates

The sample methodology employed for the 2006 Northern Ireland House Condition Survey remained broadly the same as in 2001.

A stratified random sample of properties from throughout Northern Ireland was drawn from the Valuation and Lands Agency database (extracted by NISRA).

In 2006 the total number of dwellings selected for participation in the HCS was 7,250. This included 250 properties in each of Northern Ireland's 25 district council areas with 1,000 selected for the Belfast District Council Area (250 in North, East, South and West Belfast).

The overwhelming majority of dwellings in Northern Ireland are in good condition. Resources need to be concentrated on those in need of improvement and/or repair. This is reflected in the sample design. The Survey uses a disproportionate stratified random sample design. Dwellings were stratified by district and NAV to reflect the fact that properties in poor condition tend to be concentrated in lower NAV bands. The process of weighting and grossing allow the final figures to reflect the actual housing stock.

The 2006 HCS also has a resample element to the sample. Approximately 3,250 were selected on the basis that they had been surveyed in 2001 and indeed some were also surveyed in 1996. This allows a longitudinal analysis of properties and provides an indication of flows in and out of unfitness, disrepair and tenure change.

The response rate for the 2006 House Condition Survey was very high. A total of 5,400 inspections were successfully carried out giving an overall response rate of 74 per cent. The response rate for the 2001 House Condition Survey was 76 per cent.

The response rate for the social survey was very high at 99 per cent (4,845 interviews completed out of a possible 4,900). This response is again consistent with earlier surveys.

Further details of the sample, response rates and the sample errors associated with the figures contained in the text of the report are set out in Appendix D.

1.6 The Structure of the Report

The aim of the 2006 House Condition Survey Report is to provide a comprehensive overview of Northern Ireland's dwelling stock and its occupants in 2006, in a readily digestible format. The report concentrates on issues and developments that are of particular importance in understanding the Northern Ireland housing market.

The statistical annex includes a range of tables containing information to support the description and analysis contained in the report and to provide a comprehensive reference for those requiring further details. The table numbers are pre-fixed with an A in the commentary to distinguish them from the tables included as part of the main body of the report.

This report concentrates on comparisons with the 2001 HCS rather than with the 2004 Interim HCS for two main reasons:

1. Change over two years, particularly at District Level, can be more apparent than real due to sample error;
2. The sampling design of the 2004 Survey was somewhat different to that in the 2001 and 2006 Surveys adding to the possibility of further distortion. Where comparisons with 2004 are included, therefore, it tends to be for headline indicators at the Northern Ireland level.

dwelling type by period of original construction

	Pre-1919	1919-44	1945-64	1965-80	Post 1980
FLATS/APARTMENTS					
BUNGALOW					
DETACHED HOUSE					
SEMI-DETACHED HOUSE					
TERRACED HOUSE					

2.1 Background

The 2006 Northern Ireland House Condition Survey was the ninth House Condition Survey to be carried out since 1974. The 2006 Survey provides an update on key figures in relation to the Decent Homes Standard, Fuel Poverty, SAP, unfit and disrepair at Northern Ireland and District Council level. This report, for the first time, also provides an analysis based on the new Housing Health and Safety Rating System which has replaced the Fitness Standard in England. Although this Standard has not been adopted in Northern Ireland, data collected through the HCS allows it to be measured at the regional and the district level. All the key figures are derived from the latest statistical models and are comparable with figures from the English House Condition Survey.

The longitudinal element of the Survey has allowed the Housing Executive to measure and analyse change over time and gain greater insight into the dynamics of the housing market, for example, inter-tenure movement and the impact of policy related issues such as house sales and energy efficiency.

The 2006 House Condition Survey has made an important contribution to a number of key ministerial programmes including the Empty Homes Strategy, Affordability, Fuel Poverty and the Housing Growth Indicators. It also plays a key role in helping the Housing Executive to carry out its strategic role and contributes to its annual Review of the Housing Market. The Housing Executive spends more than £250 million annually on physical programmes and the House Condition Survey helps ensure that scarce resources are targeted to the dwellings and households where they are most needed. It also provides a wealth of information that is regularly requested by Members of the Northern Ireland Assembly, elected representatives, councils, government departments, agencies, charities and by many voluntary and private sector interests.

The 2006 Northern Ireland House Condition Survey was the ninth House Condition Survey to be carried out since 1974. The 2006 Survey provides an update of key figures in relation to The Decent Homes Standard, Fuel Poverty, SAP, unfit and disrepair at Northern Ireland and District Council level. This report, for the first time, provides an analysis of the new Housing Health and Safety Rating System which has replaced the Fitness Standard in England.

2.2 Survey Objectives

The key objectives for the 2006 Northern Ireland House Condition Survey are:

- 1 to provide a comprehensive picture of the dwelling stock and its condition in 2006 at District Council as well as Northern Ireland level
- 2 to facilitate a comparative analysis of housing conditions in Northern Ireland with other parts of the United Kingdom;
- 3 to examine the association between dwelling conditions and the social and economic circumstances of households;
- 4 to examine changes in the condition of the stock over time;
- 5 to examine the impact of renovation grants in reducing unfitnes;
- 6 to provide a reliable assessment of Fuel Poverty in Northern Ireland as a whole on a comparable basis with the rest of the United Kingdom.

Key Findings

2.3 Northern Ireland's Dwelling Stock

In 2006 there were a total of 705,000 dwellings in Northern Ireland, a net increase of 57,500 (11,500 per annum) since 2001 and an increase of 25,000 (12,500 per annum) since 2004. This represents a significantly higher rate of increase than the annual average increase recorded between the 1996 and 2001. This accelerating rate of growth of the housing stock reflects continuing economic prosperity fuelled by population growth (including large numbers of migrant workers), the increased propensity for single living and the demand for second, or indeed multiple homes (for investment and/or recreational purposes).

- The net increase of 57,500 is the result of flows in and out of the stock:
 - There were an estimated 66,400 new dwellings constructed between 2001 and 2006 and a further 2,000 dwellings were created through conversions.

- Approximately 7,000 dwellings were demolished, an average of approximately 1,400 per annum, a similar rate to that between 1996 and 2001.
- A further estimated 3,900 dwellings were lost from stock, mainly through dereliction (2,500) and change of use (1,200).
- The broad geographical distribution has changed little (70% urban; 30% rural). However, the House Condition Survey recorded a considerable decline in the number of isolated rural dwellings from 114,400 (17.5%) in 2001 to 104,300 (14.8%) in 2006. There are two key factors which may account for the declining number of isolated rural dwellings including:
 - change of use/disuse/dereliction of dwellings in remoter rural areas experiencing depopulation;
 - the expansion of towns and villages to absorb many previously isolated rural dwellings.

Both these factors have outweighed the relatively small number of new isolated dwellings (including second homes) which have been built in rural areas between 2001 and 2006.

- The overall growth in the number of dwellings between 2001 and 2006 did not occur equally across all council areas. The largest growth occurred in Belfast (5,400), Down (5,000) and Derry (4,400), although in relative terms this represented a much larger increase in Down (22%) than in Belfast (5%) or Derry (12%). Other District Council areas where the dwelling stock increased by more than 15 per cent over the five year period were Ballymoney (27%), Dungannon (18%), Moyle (18%) and Limavady (17%). These tended to be those where there has been a significant growth in the number of second homes or where there are concentrations of migrant workers.
- However there was a marked change in the tenure composition of the stock. The proportion of owner-occupied stock (66%) remained

static over the five year period. In contrast the proportion of privately rented stock rose rapidly to 11.5 per cent, although this also brought in its wake a growing number and proportion of vacant properties, especially in Belfast - and particularly in South Belfast which had an exceptionally high rate of vacant properties (15.1%) The number and proportion of tenanted Housing Executive properties has continued to decline, largely as a result of the sale of dwellings to sitting tenants (in 2001 there were 116,000 Housing Executive dwellings compared to 93,400 in 2006). The number of occupied rented housing association properties rose from 17,900 to 21,500 (2001-2006), a net annual increase of approximately 700 dwellings.

- The analysis of inter-tenure movement indicated that approximately 29,000 dwellings that were in owner occupancy in 2001 entered the private rented sector by 2006. A further 4,000 Housing Executive properties also moved into the private rented sector over this period.
- The 2006 House Condition Survey indicated an ongoing change in the age profile of the housing stock as a result of:
 - A small decline in both the absolute numbers and proportion of dwellings in the oldest age category, mainly as a result of demolition;
 - A substantial increase in the post-1980 category as a result of the accelerated rate of construction of new dwellings between 2001 and 2006. Almost one-third (30%) of Northern Ireland's total stock was built after 1980.
- The 2006 House Condition Survey confirms that Northern Ireland's dwelling stock continues to be dominated by houses and bungalows (single storey houses, despite the greater number of flats/apartments being built in recent years.
- The greater propensity for smaller households. In line with other research the HCS shows that the proportions of smaller households such as two person older, two adults and lone adult have slightly increased since 1996, while the proportions of small and large family households have shown decreases.
- Overcrowding was not a major issue in Northern Ireland in 2006 with only three per cent of households living in circumstances which fall below the Bedroom Standard.
- The HCS shows that the proportion of younger people renting privately has risen due primarily to a combination of rapidly rising house prices and a reduction in social housing stock. Meanwhile the rates of owner occupation have reduced for some household groups, particularly for households headed by reference persons aged between 25 and 39.
- Not only has there been an increase in the overall proportion of stock in the private rented sector, but the HCS has also provided some evidence of the changing social characteristics of households living in this tenure. Findings have shown rising proportions of younger people (aged 17 to 39), lone parents, the unemployed and those looking after the family home. Consequently, there has been an increase in the number and proportion of lower income households living in the private rented sector, indicating that this sector has, to a certain degree, taken over the role of housing many of those who 10 years ago would have found accommodation in the social sector.
- The proportion of youngest (17-24) and oldest (75 plus) age groups living in Housing Executive dwellings has declined from 42 per cent and 21 per cent respectively in 2001 to 18 per cent and 15 per cent respectively in 2006.
- In 2006 the HCS estimated that almost half (47%; 39% HCS 2001) of Housing Executive stock was occupied by single person households, the majority (58%) of whom said they had a long term illness that limited their daily activities.

2.4 Household Profile

The household data from the 2006 HCS confirmed a number of important housing trends including:

- In 2006, there were similar proportions of Catholic and Protestant households in terraced and detached housing and Catholic households were more likely to live in newer (post 1980) dwellings (35%) compared to Protestant households (25%).

2.5 Dwelling Unfitness and the State of Repair

The headline unfitness rate fell from 4.9 per cent in 2001, to 3.8 per cent in 2004 and to 3.4 per cent in 2006 in response to both the greater economic prosperity and confidence in the housing market, encouraging ongoing investment in the private sector, and to ongoing investment in social housing.

- In spite of this there still remained 24,000 dwellings that were statutorily unfit.
- The most common reasons for unfitness were serious disrepair, unsatisfactory facilities for the preparation and cooking of food, and the lack of a suitably located bath or shower and wash hand basin.
- These unfit dwellings were more likely to be in the private sector; in rural areas (particularly in isolated rural areas) and to have been built before 1919. Nearly three-fifths of them were vacant.
- The rates of unfitness by district council showed the lowest rates tending to be in council areas close to Belfast. As in 1996 and 2001, Fermanagh still had the highest rate of unfitness (7.4%) although this had fallen considerably since 1996 (17.5%) and 2001 (12.9%).
- The most vulnerable sections of society - the lone elderly, (particularly those over 75 years of age) the unemployed, people who were sick or had a disability and households on low incomes were all to be found in disproportionately high numbers in unfit dwellings.
- There was a marked improvement in the state of repair of Northern Ireland's dwelling stock between 2001 and 2006. The percentage of the dwelling stock with at least one fault had fallen from 59 per cent in 2001 to 52 per cent in 2006.
- Disrepair was particularly prevalent in vacant dwellings (72%), but it was also higher than average in the private rented sector (64%).

There was a clear relationship between the age of the dwelling and disrepair with nearly three-quarters of all dwellings built before 1945 having faults.

- The average basic repair cost for the stock as a whole was £1,206 giving a total repairs bill of £1,040 million. Average repair costs were particularly high in vacant dwellings and, in the case of the occupied stock, in the private rented sector.

2.6 The Decent Homes Standard, 2006

- In Northern Ireland in 2006 less than one-quarter (23%; 162,100) of all dwellings failed the Decent Homes Standard, which is increasingly seen as the leading government indicator for measuring stock quality. This is a significant improvement from 2001 when nearly one-third of dwellings failed the standard (32%; 206,000).
- Of the 162,100 dwellings that failed the standard more than four-fifths (85%) failed on the basis of the thermal comfort criterion. One-fifth (20%) failed on the basis of disrepair and 15 per cent on the basis of lacking modern facilities and services.
- The rate of non-decency varied considerably by tenure:
 - It was highest among vacant dwellings (50%);
 - One-quarter (25%) of Housing Executive and slightly more than one-quarter of privately rented properties (27%) failed the Decent Homes Standard;
 - In the owner occupied sector one-fifth of dwellings were non-decent while in the housing association sector the failure rate was very low (9%) reflecting the age profile of this sector.
- The great majority of owner occupied dwellings (84%) and privately rented dwellings (78%) that failed the Decent Homes Standard did so on the thermal comfort criterion. However, one-quarter (25%) of privately rented dwellings failed on the basis of disrepair compared to only 15 per cent in the owner occupied sector. Small proportions failed on modern facilities and services (17% privately rented and 13% owner occupier).

- For Housing Executive dwellings the picture is somewhat different: almost all dwellings that failed the Decent Homes Standard, failed on the thermal comfort criterion (97%); whereas only minimal proportions failed on disrepair (4%) and on modern facilities and services (5%).
- The vast majority of housing association dwellings that failed did so on the basis of the thermal comfort criterion (94%) with minimal numbers failing the disrepair and on facilities/services criteria.
- Vacant dwellings displayed a pattern similar to that for the owner occupied and private rented sectors with nearly four-fifths (78%) failing on the basis of the thermal comfort criterion, 57 per cent on the basis of disrepair and nearly two-fifths (38%) on the basis of facilities and services.
- There was a clear association between failing the Decent Homes Standard and dwelling age. The older the dwelling the more likely it was to fail the Standard.
 - Two-fifths (41%) of all dwellings that had been built before 1919 were non-decent compared to only eight per cent for the post-1980 category.
 - Indeed 29% of all non-decent homes were pre 1919.
- A little more than one-fifth (21%; 140,600) of all occupied dwellings failed the Decent Homes Standard.
- Household Reference Persons over the age of 75 were much more likely to live in non-decent homes than other age groups Almost one-third (32%) of HRPs aged 75 or more lived in non-decent dwellings.
- Lone older (29%) and lone adult (27%) households were more likely to live in non-decent homes than other household types. An estimated 54,100 elderly households lived in non-decent homes.
- More than one-quarter of Household Reference Persons who were unemployed (28%) and retired (26%) lived in non-decent homes. This was much

higher than the overall average of 21 per cent for all occupied dwellings. Much lower percentages were recorded for those working part or full time.

- The 2006 House Condition Survey showed that there was a clear relationship between annual income and the likelihood of living in a decent home. The lower the annual income the greater the likelihood of living in a non-decent home.
- Households describing themselves as Catholic (20%) were less likely to live in non-decent homes than those describing themselves as Protestant (23%). This variation is largely explained by differing age profiles and by the fact that a greater percentage of Catholic households lived in the newest (post 1980) dwellings.

2.7 Fuel Poverty in Northern Ireland, 2006

Analysis of households in Fuel Poverty in 2006 shows that:

- Considerable progress had been made in reducing Fuel Poverty in Northern Ireland between 2001 and 2004 (from 27% to 23%) but by 2006 the rate of Fuel Poverty had increased to 34 per cent, largely as a result of the very significant increases in the price of fuel. In England, in 2005, 7.2 per cent were in fuel poverty.
- However, low income has also been shown to be a very significant cause of Fuel Poverty in Northern Ireland in 2006 (75% of households with an annual income of less than £7,000 were in Fuel Poverty). Indeed, 85 per cent of all households in Fuel Poverty had incomes of £14,999 per annum or less.
- However, on the basis of these general factors the HCS indicates that Fuel Poverty was correlated to a number of other factors:
 - More than one-half (54%) of households living in older dwellings (pre 1919) were in Fuel Poverty;
 - Also almost one-half (43%) of households living in isolated rural areas were in Fuel Poverty;
 - More than one-half (56%) of households headed by an older person (75 plus) were in Fuel Poverty in 2006. More than three-fifths (62%) of lone older households were fuel poor.

- Fuel Poverty was higher in households with HRP's who were unemployed (55%), permanently sick or disabled (51%) or retired (51%).

2.8 Housing Health and Safety Rating System, 2006

- Overall 19 per cent of all dwellings in Northern Ireland were considered to have Category 1 hazards in 2006. More common hazards in dwellings in Northern Ireland were excess cold and falls on stairs.

The types of dwellings most likely to have Category 1 hazards were:

- vacant properties (47%) followed by owner occupied (20%) and private rented dwellings (19%);
- older dwellings built before 1919 (42%) and between 1919 and 1944 (29%).
- Nine out of 10 (90%) unfit dwellings in Northern Ireland in 2006 failed the HHSRS and 51 per cent of dwellings which failed the Decent Homes Standard also failed HHSRS.
- Overall 18 per cent of occupied dwellings were considered to have Category 1 hazards in 2006. Older HRP's (23%; 75 plus) were slightly more likely to live in these dwellings. There was little variation across other key social groups.

2.9 Energy

The 2006 House Condition Survey confirmed the ongoing progress being made in achieving higher levels of energy efficiency in Northern Ireland's housing stock. The most important contributory factor has been the switching of domestic central heating fuel from solid fuel or electric to oil or gas:

- Overall 98 per cent of dwellings in 2006 had central heating (95% in 2001);
- Oil has increasingly become the preferred fuel for domestic heating. The proportion of dwellings with oil fuel central heating (including dual systems) increased by eight percentage points since 2001, from 68 per cent in 2001 to 76 per cent in 2006;

- The use of solid fuel for heating fell from 14 per cent in 2001 to less than five per cent in 2006;
- The use of gas steadily increased from three per cent in 2001 to 12 per cent in 2006.

Improvements to wall insulation, loft insulation and double-glazing also made an important contribution to the improvement in the energy efficiency of the stock.

- Full cavity wall insulation has increased by 12 percentage points over the period 2001 to 2006 (from 50% to 62%);
- Conversely the proportion of dwellings with no wall insulation has fallen dramatically between 2001 and 2006 (from 39% to 22%);
- The proportion of dwellings with lofts with loft insulation rose from 89 per cent in 2001 to 95 per cent in 2006;
- The proportion has increased by 21 percentage points from 47 per cent to 68 per cent in 2006, and the proportion without double-glazing has fallen from 31 per cent in 2001 to 14 per cent in 2006.
- These changes in the energy profile of the stock combined to produce a considerable improvement in the overall SAP rating (SAP05), rising from 45.5 to 52.4 between 2001 and 2006.
- The improvements in energy efficiency have taken place in all sectors of the housing market, but particularly in the private rented sector - mainly due to the increasing numbers of newer dwellings in this sector - and in Housing Executive stock where ongoing improvement programmes, including the introduction of new central heating systems, have been implemented.
- Similarly, energy efficiency has generally improved for all groups of households. Some 36,130 households have a SAP rating of less than 20 and, as in 2001, these tended to be the most vulnerable groups where the household reference person was elderly, unemployed or on a low income.

TABLE 3.1 NORTHERN IRELAND'S DWELLING STOCK - KEY FIGURES 1974-2006

	1974	1991	1996	2001	2006
Total	455,500	574,300	602,500	647,500	705,000
	100%	100%	100%	100%	100%
Urban	269,400	404,100	402,100	434,600	493,810
	(59%)	(70%)	(67%)	(67%)	(70%)
Rural	186,100	170,200	200,400	212,900	211,190
	(41%)	(30%)	(33%)	(33%)	(30%)
Owner Occupied	212,200	347,200	381,200	432,300	468,860
	(46.6%)	(60.5%)	(63.3%)	(67%)	(66.5%)
Private Rented (and Others)	72,200	28,600	38,000	49,400	80,870
	(15.8%)	(5.0%)	(6.3%)	(7.6%)	(11.5%)
Housing Executive	153,500	158,200	141,200	116,000	93,440
	(33.7%)	(27.6%)	(23.4%)	(17.9%)	(13.3%)
Housing Association	-	10,000	13,000	17,900	21,530
		(1.7%)	(2.1%)	(2.8%)	(3.1%)
Vacant	17,600	30,300	29,100	31,900	40,300
	(3.9%)	(5.3%)	(4.8%)	(4.9%)	(5.7%)
Pre 1919	157,300	121,500	120,800	116,400	113,810
	(34.5%)	(21.2%)	(20.0%)	(18.0%)	(16.1%)
1919 - 44	75,200	65,100	69,400	69,100	71,030
	(16.5%)	(11.3%)	(11.5%)	(10.7%)	(10.1%)
1945 - 64	223,000	129,800	128,800	127,800	141,360
	(49.0%)	(22.6%)	(21.4%)	(19.7%)	(20.1%)
1965 - 80	Included in	162,300	158,400	159,900	169,250
	1945 - 64	(28.3%)	(26.3%)	(24.7%)	(24.0%)
Post 1980	-	95,600	125,100	174,300	209,550
	-	(16.7%)	(20.8%)	(27.0%)	(29.7%)
Bungalows	-	-	145,200	157,000	159,930
			(24.1%)	(24.2%)	(22.7%)
Terraced House	199,000	210,500	201,900	200,300	225,380
	(43.7%)	(36.7%)	(33.5%)	(30.9%)	(32.0%)
Semi-detached House	91,000	139,800	110,400	123,500	141,240
	(20.0%)	(30.9%)	(18.3%)	(19.1%)	(20.0%)
Detached House	133,700	177,300	93,400	115,000	122,410
	(29.4%)	(30.9%)	(15.5%)	(17.8%)	(17.4%)
Purpose Built Flat	23,900	38,500	42,800	43,700	-
	(5.2%)	(6.7%)	(7.1%)	(6.7%)	
Converted Flat	3,200	8,100	8,800	8,000	-
	(0.7%)	(1.4%)	(1.5%)	(1.3%)	
Flat/Apartment (combined figure)	-	-	-	-	56,040
					(8.0%)

1. Due to rounding columns may not always add to total stock.

2. Bungalows were not counted separately until the 1996 Survey. The definition of a bungalow is a dwelling with "no fixed internal staircase". A loft conversion of a bungalow which then includes a permanent staircase becomes a "house".

3. The 1974 House Condition Survey used a slightly different dwelling type classification.

3.1 Introduction

This chapter presents an overview of the characteristics of Northern Ireland's dwelling stock - its distribution, tenure, age and dwelling type and compares them to the findings from the 2001 House Condition Survey. It also compares some of the key statistics with data from the 2005 English House Condition Survey.

Table 3.1 sets out the key comparative statistics. Additional, much more detailed, tables are contained in the Statistical annex.

3.2 The Total Stock and its Distribution

In 2006 there were a total of 705,000 dwellings in Northern Ireland, a net increase of 57,500 (11,500 per annum) since 2001 and an increase of 25,000 (12,500 per annum) since 2004. This represents a significantly higher rate of increase than the annual average increase recorded between the 1996 and 2001. This accelerating growth of the housing stock reflects continuing economic prosperity and a concomitant increase in the demand for housing fuelled by population growth (including large numbers of migrant workers), the increased propensity for single living and the demand for second, or indeed multiple homes (for investment and/or recreational purposes).

The net increase in the number of dwellings (57,500) is the result of a combination of flows in and out of the stock (see Figure 3.1).

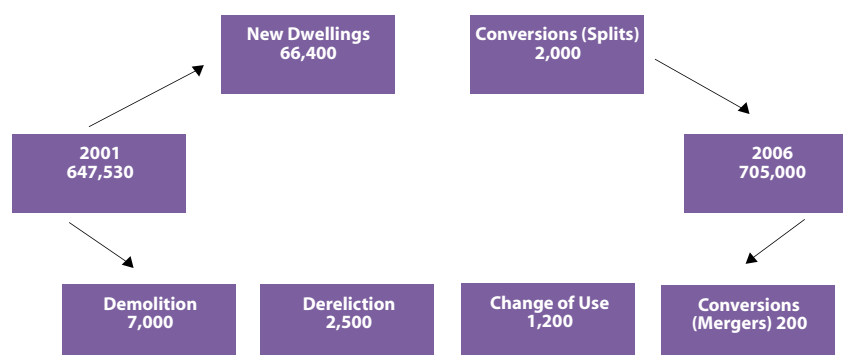
- There were an estimated 66,400 new dwellings constructed between 2001 and 2006 and a further 2,000 dwellings were created through conversions.
- Approximately 7,000 dwellings were demolished, an average of approximately 1,400 per annum, a similar rate to that between 1996 and 2001.
- A further estimated 3,700 dwellings were lost from stock, mainly through dereliction (2,500) and change of use (1,200).

Urban/rural (Table A3.1)

- Although there has been a significant growth in the number of both urban and rural dwellings, their proportions in terms of the overall stock has not changed significantly since 2001.

This chapter presents an overview of the characteristics of Northern Ireland's dwelling stock - its distribution, tenure, age and dwelling type and compares them to the findings from the 2001 House Condition Survey. It also compares some of the key statistics with data from the 2005 English House Condition Survey.

FIGURE 3.1 FLOWS INTO AND OUT OF THE RESIDENTIAL STOCK, 2001-2006



- The number of dwellings located in urban areas has grown from 456,600 in 2001 to 493,800 in 2006, while the proportion has remained almost the same (70.5% in 2001 and 70.0% in 2006).
- The number of dwellings in the Belfast Metropolitan Area grew from 263,900 (40.8%) to 275,400 (39.1%) and in District/"Other" Towns from 192,700 (29.8%) to 218,400 (31.0%). However again the relative proportions remained very similar.
- The total number of rural dwellings has increased from 191,000 (29.5%) in 2001 to 211,200 (30.0%) in 2006. However, while the number in small rural settlements increased from 76,600 (11.8%) to 106,900 (15.2%) in 2006 the House Condition Survey recorded a considerable decline in the number of isolated rural dwellings from 114,400 (17.5%) in 2001 to 104,300 (14.8%) in 2006.

There are two key factors which may account for the declining number of isolated rural dwellings including:

- change of use/disuse/dereliction of dwellings in remoter rural areas experiencing depopulation;
- the expansion of towns and villages to absorb many previously isolated rural dwellings.

Both these factors have outweighed the relatively small number of new isolated dwellings (including second homes) which have been built in rural areas between 2001 and 2006.

District Council (Table A3.2)

Table A3.2 provides an estimate of the total housing stock in each District Council and shows that the overall growth in the number of dwellings between 2001 and 2006 (57,500; 9%) did not occur equally across all council areas:

- The largest growth occurred in Belfast (5,400), Down (5,000) and Derry (4,400), although in relative terms this represented a much larger increase in Down ((22%) than in Belfast (5%) or Derry (12%).
- Other District Council areas where the dwelling stock increased by more than 15 per cent over the five year period were Ballymoney (27%), Dungannon (18%), Moyle (18%) and Limavady (17%).
- District Councils which experienced growth rates of more than 15 per cent tended to be those where there has been a significant growth in the number of second homes or where there are concentrations of migrant workers.

3.3 Dwelling Tenure

The 2006 House Condition Survey collected information on dwelling tenure on the basis of four tenures: owner-occupied, private rented (including tied accommodation), Housing Executive and housing association. If a dwelling was vacant on the day it was surveyed, this was recorded and the surveyor was asked to classify the tenure of

the dwelling on the basis of its tenure when last occupied, allowing tenure analysis to be carried out on the basis of both a four-fold and five-fold classification, as appropriate.

The key tenure-related findings which emerged from the 2006 House Condition Survey (see Table 3.1):

Owner-occupied

There were an estimated 468,800 (66.5%) owner-occupied dwellings. This represented an increase of 36,500 dwellings over the 2001 total; however, as a proportion of the overall owner occupation remained almost unchanged. The ongoing growth in the number of owner-occupied dwellings reflects both the continuing high levels of new private sector construction and the sale of Housing Executive dwellings.

Privately Rented

The most dramatic tenure-related finding of the 2006 House Condition Survey was the continued rapid increase in both the number and proportion of privately rented dwellings. In 2001 there were 49,400 (7.6%) privately rented dwellings in Northern Ireland. By 2006 this had risen to approximately 80,800 (11.5%), an increase of 31,400 (6,300 per annum). Indeed if vacant properties (on the basis of tenure when last occupied) are included, the figure rises to 94,600 (13.4%), reflecting the very buoyant investor market.

Housing Executive

The number and proportion of tenanted Housing Executive properties has continued to decline, largely as a result of the sale of dwellings to sitting tenants. In 2001 there were 116,000 Housing Executive (17.9%) dwellings. By 2006 the number had fallen to 93,400 (13.3%).

Housing Association

The number of occupied rented housing association properties rose from 17,900 (2.8%) in 2001 to 21,500 (3.1%), a net annual increase of approximately 700 dwellings.

Vacant properties

- Between 2001 and 2006 the number of vacant properties increased from 31,900 (4.9%) to 40,400 (5.7%). In one sense this can be seen as a

significant increase, however, in another it should be seen merely as a by-product of the rapid growth in the private rented sector. In 2006 there were approximately 13,800 vacant properties which were privately rented when last occupied (representing a vacancy rate of almost 15% and comprising 34% of all vacant properties). In 2001 only 8,200 vacant properties were in the private rented sector when last occupied, and although this represented a similar rate of vacancy in the private rented sector, these properties represented only 26 per cent of all vacant properties.

- Analysis of the vacant properties by location reveals that approximately one-quarter (10,200; 25.3%) of all vacant properties were to be found in Belfast - and particularly in South Belfast which had an exceptionally high rate of vacant properties (15.1%) associated to a large extent with the large transient student population. However, rural areas such as Fermanagh (10.8%) and Omagh (11.5%) also contained high rates of vacancy reflecting ongoing depopulation of particularly the remoter parts of these District Council areas. Indeed while both urban areas and small rural settlements have vacancy rates of approximately five per cent, for isolated rural areas as a whole the vacancy rate rises to 9.5 per cent.
- Surveyors recorded the tenure of vacant properties when they were last occupied. Analysis of this information shows that more than one-half (54%) had been owner-occupied; one-third (34%) had been privately rented, nine per cent were Housing Executive properties and four per cent were Housing Association properties.
- Approximately 44 per cent of all vacant properties were constructed before 1919 (significantly lower proportion than in 2001 when the corresponding figure was 50%) and almost one-quarter (23%) were built between 1919 and 1964.
- More than 7,000 properties built since 1990 were vacant in 2006.
- More than two-fifths (41%) of all vacant properties had been empty for less than six months. However, almost one-quarter (24%) had been vacant for more than three years.

TABLE 3.2 INTER-TENURE MOVEMENT, 2001-2006

Tenure in 2006	Tenure In 2001					Total
	Owner-occupied	Private Rented	Housing Executive	Housing Association	Vacant	
Owner-occupied	388,300	12,800	17,500	900	10,400	429,900
Private Rented	28,600	29,400	3,700	500	6,700	69,000
Housing Executive	1,400	*	87,100	400	1,600	90,700
Housing Association	*	*	*	14,900	800	19,300
Vacant	10,600	5,000	4,300	900	9,200	30,000
Demolished Derelict, etc	2,000	1,200	1,200	*	4,000	8,600
Total	432,000	49,400	115,600	17,800	32,700	647,500

Inter-tenure flows

The longitudinal element of the 2006 House Condition Survey provides an important insight into the dynamic nature of the housing market. Table 3.2 compares the tenure of the 647,500 dwellings existing in 2001 with the tenure of the very same dwellings in 2006. It must be emphasised that these figures are based on a sub-sample (the 2006 resample) and reconciled with the 2001 figures. The samples are not strictly comparable because of their different stratification and therefore their weighting and grossing. Nevertheless, they do provide a reasonable indication of general patterns of inter-tenure movement and the relative importance of individual tenure-to-tenure flows.

- Some 528,900 (82%) dwellings had the same tenure in 2006 as in 2001.
- Approximately 17,500 dwellings owned by the Housing Executive in 2001 were in the owner-occupied sector in 2006 and a further 3,700 were privately rented.
- There was considerable inter-tenure movement between the private rented and owner-occupied sectors. Some 28,600 dwellings that were owner-occupied in 2001 were privately rented in 2006. Conversely, however, only 12,800 dwellings that were privately rented in 2001 were owner-occupied in 2006, confirming that tenure switch was a major factor in the rapid growth of the private rented sector over this five year period.

- Less than one-third (9,200; 28%) of the dwellings that were vacant in 2001 remained vacant in 2006, confirming the high rate of movement in and out of vacancy. A further 10,400 dwellings that were vacant in 2001 were owner-occupied in 2006, 6,700 were privately rented and 1,600 became occupied Housing Executive dwellings.
- Conversely, 10,600 dwellings that were vacant in 2006 had been owner occupied in 2001, a further 5,000 had been privately rented and 4,300 had been occupied Housing Executive dwellings.
- Some 8,600 dwellings¹ had become derelict, had been demolished or changed their use between 2001 and 2006. Almost one-half (4,000; 47%) of these had been vacant in 2001, 1,200 (14%) were occupied Housing Executive dwellings, 2,000 (23%) had been owner-occupied and a further 14 per cent had been privately rented in 2001.

Dwelling Tenure - Urban/Rural Location (Table A3.3)

The proportion of the stock in each tenure varied according to location:

- Less than two-thirds of urban stock (62%) was in the owner-occupied sector compared to more than three-quarters (76%) in rural areas.
- Conversely one-fifth (20%) of urban stock was in the social sector, compared to only seven per cent in rural areas. Indeed in isolated rural areas only one per cent of the stock was in the social sector.

- The proportion of Northern Ireland's stock as a whole in the private rented sector was 11.5 per cent. However 12.5 per cent of its urban stock was in this sector compared to only nine per cent of its rural stock. In isolated rural areas this proportion falls to seven per cent.

TABLE 3.3 VACANT DWELLINGS AND VACANCY RATE BY LOCATION, 2006

	Vacant dwellings	Vacancy rate
BMA	14,400	5.2%
District & Other Towns	10,600	4.8%
Total Urban	25,000	5.1%
Small Rural Settlement	5,400	5.1%
Isolated Rural	9,900	9.5%
Total Rural	15,300	7.3%
All Vacant Dwellings	40,300	5.7%

- The majority of vacant dwellings (25,000; 62%) were in urban areas, compared to rural areas (15,300; 38%). This is a significant change from 2001 when the majority of vacant dwellings (53%) were in rural areas and reflects the number of vacant privately rented dwellings in urban areas.
- However, the rate of vacancy is considerably higher in rural areas (7.3%) than in urban areas (5.1%). The highest rate of vacancy was to be found in isolated rural areas (9.5%), often associated with the abandonment of farms in remoter rural areas.

Dwelling Tenure - District Council (Table A3.2)

The rate of owner occupancy varies considerably by District Council area, from 54 per cent in Belfast to 78 per cent in Castlereagh.

- In most District Council areas the proportion of privately rented stock has increased considerably. The proportions of privately rented dwellings remain high in the traditional concentrations of Belfast (13%), Derry (12%) and Coleraine (18%). However, a number of more rural councils now have at least 15 per cent of their stock in this sector: Craigavon (15%), Dungannon (16%),

Fermanagh (15%), Limavady (22%), Moyle (17%) and Omagh (17%), and may to a large extent reflect concentrations of migrant workers in these areas.

- The highest proportions of stock in the social sector are to be found in Belfast, in West Belfast (44%) and North Belfast (25%), in Derry (25%) and in Lisburn (20%).
- The District Council areas with the highest rates of vacancy are Fermanagh (11%) and Omagh (12%), reflecting their predominantly remoter rural character. The vacancy rate is also high in South Belfast (15%) reflecting the high proportion of privately rented properties in this area.
- Areas with the lowest vacancy rates (West Belfast 2%; Castlereagh 1%; Lisburn 1%) are those with the highest levels of housing demand and need.

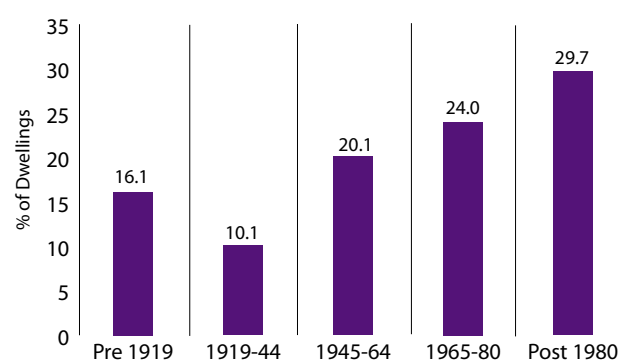
3.4 Dwelling Age

The 2006 House Condition Survey indicated an ongoing change in the age profile of the housing stock as a result of:

- A small decline in both the absolute numbers and proportion of dwellings in the oldest age category, mainly as a result of demolition;
- A substantial increase in the post-1980 category as a result of the accelerated rate of construction of new dwellings between 2001 and 2006.

The key age-related findings are as follows (see Table 3.1 and Figure 3.2):

FIGURE 3.2 DWELLING AGE, 2006



Dwelling Age, 2001 and 2006

In 2006 approximately 30 per cent of all dwellings were constructed after 1980 compared to 27 per cent in 2001. Indeed nearly one-fifth (18%) of all dwellings have been built since 1990, including more than 60,000 between 2001 and 2006. This age profile has become increasingly dominated by more recently constructed dwellings due to the steady increase in the annual rate of newly constructed dwellings and this in turn is an important factor in understanding the significant improvement in condition and energy efficiency² of the stock (see Chapters 5 - 7).

- Approximately 10 per cent of all dwellings were built between 1919 and 1945 and one-fifth between 1945 and 1964.
- Approximately 16 per cent of all dwellings were built prior to 1919 compared to 18 per cent in 2001, reflecting the ongoing demolition of older stock, particularly in areas of Belfast subject to regeneration.

Dwelling Age - Dwelling Tenure (Table A3.4)

Further analysis of dwelling age by tenure shows the following:

- Between 2001 and 2006 there was a considerable increase in the number of 1945-64 dwellings (12,000) and 1965-80 properties (10,000) in owner occupancy, primarily reflecting the sale of Housing Executive dwellings during this five year period.
- Owner occupied stock comprises between 60 per cent and 70 per cent of properties in all age groups and more than 30 per cent of the owner occupied sector was built after 1980 (compared to 28% in 2001).
- Less than one-third (30%) of the privately rented properties were built before 1919 (compared to 38% in 2001). Sixteen per cent were built in the period 1919 to 1944 compared to 21 per cent in 2001. The changing age profile of the private rented sector mainly reflects the growth of the buy-to-let sector, but also demolitions and newer

former Housing Executive dwellings which entered the private rented sector.

- Only a small proportion of Housing Executive dwellings (6.5%) were built before 1919. Indeed more than 70 per cent of Housing Executive dwellings were constructed between 1945 and 1980.
- The great majority of housing association dwellings (81%; 17,400) were built after 1980, reflecting their recent history. However, some 1,900 (9%) were built before 1919 reflecting the important role community based and other associations play in bringing older dwellings up to modern standards.
- More than two-fifths (44%) of all dwellings which were vacant in 2006 had been constructed before 1919 (a smaller proportion than in 2001 (50%)), reflecting vacancies in the increasing number of modern buy-to-let properties. Indeed 16 per cent of all dwellings built before 1919 were vacant (a small increase since 2001). This is more than twice as high as the 1919-44 age group (6%) and more than three times as high as the vacancy rate in the other three age groups.
- Some 2,500 vacant properties have been built since 1990. Closer examination indicates that a relatively high proportion are sheltered housing association properties or belong to the private rented sector.

Dwelling Age - Urban/Rural Location (Table A3.5)

Analysis of dwelling age by location reveals the following:

A considerably higher proportion of rural dwellings were built before 1919 (26%) compared to urban areas where the comparable figure was only 12 per cent. Indeed of all such older dwellings 41,000 (36%) were in isolated rural areas.

Two-thirds (66%) of all dwellings built after 1980 were located in urban areas. However, rural areas have a slightly higher proportion of dwellings built since 1980 (34%) compared to urban areas (28%).

In urban areas a considerably higher proportion of dwellings (60%) is in each of the middle age groups (1919-80) compared to rural areas (39%).

Dwelling Age - District Council (Table A3.6)

Analysis of dwelling age by district council confirms this general pattern:

- District Councils with at least 25 per cent of their housing stock in the oldest category (built before 1919) tend to be those with a District Town, surrounded by a large rural hinterland: Armagh, Cookstown and Fermanagh. A number of Districts (Banbridge, Dungannon, Larne, Moyle) that had at least 25 per cent in 2001 dropped below this level due to the scale of new housing construction. The highest proportion of pre-1919 dwellings is to be found in South Belfast (30%).
- At the other end of the age scale in a number of District Council areas, more than 30 per cent of the stock had been built since 1980: Ballymoney, Banbridge, Coleraine, Down, Derry, Fermanagh, Limavady, Lisburn, Moyle, Newry & Mourne and Omagh. Indeed in Ballymoney and Omagh this figure rose to more than 40 per cent. This young age profile reflects the proportionately high rate of new housing construction which has taken place between 1996 and 2001. In Ballymoney, more than one-third (34%) of the stock has been built since 1990.

3.5 Dwelling Type

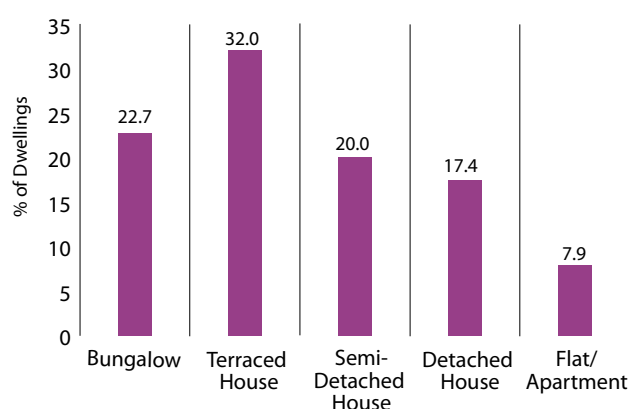
The 2006 House Condition Survey confirms that Northern Ireland's dwelling stock continues to be dominated by houses and bungalows (single storey houses), despite the greater number of flats/apartments being built in recent years (see Table 3.1 and Figure 3.3).

- More than one-fifth of all dwellings were bungalows (or single storey cottages) (159,900; 22%), a slightly lower proportion than in 2001 (157,000; 24%).
- Semi-detached houses and detached houses each accounted for approximately one-fifth of the stock: 141,300 (20%) and 122,400 (17%)

respectively, compared to 123,500 (19%) and 115,000 (18%) in 2001.

- The number and proportion of terraced houses has increased from 200,300 (31%) in 2001 to 225,400 (32%) in 2006, comprising more than two-fifths of the overall net increase in housing stock between 2001 and 2006.
- Flats/apartments accounted for eight per cent of the total stock (56,000) in 2006, the same proportion as in 2001, although the number increased by approximately 4,300 (a net increase reflecting the more rapid growth of the apartment sector less the demolished blocks of redundant - mainly Housing Executive - flats).

FIGURE 3.3 DWELLING TYPES, 2006



Dwelling Type - Dwelling Tenure (Table A3.7)

The survey showed that once again there were some major differences in the dwelling types associated with the main tenure groups.

- The vast majority of bungalows were in the owner-occupied sector, although a further 13 per cent belonged to the Housing Executive.
- The overwhelming majority of detached (88%) and semi-detached (76%) houses were owner-occupied, whereas only 56 per cent of terraced houses and a much smaller proportion of flats/apartments (18%) were owner-occupied.
- Some 17 per cent of terraced houses were in the private rented sector, but they represented 46 per cent of the overall private rented stock.

- One third (33%; 78,700) of all apartments/flats belonged to the Housing Executive and a further 18 per cent (10,300) to the housing associations; only 17 per cent were in the private rented sector. Indeed flats/apartments comprised only 11 per cent of the total private rented sector. Only two per cent of dwellings in the owner-occupied sector were flats/apartments. Almost 14 per cent of all flats/apartments were vacant - more than twice the rate of any other dwelling type - reflecting high levels of vacancy in the recently built buy-to-let sector.
- The proportion of Housing Executive stock which is terraced housing remained constant between 2001 and 2006 at approximately 50 per cent, however the proportion of semi-detached dwellings fell from approximately 12 per cent to eight per cent. The proportion of Housing Executive dwellings which were flats has increased between 2001 and 2006 from 17 to 20 per cent, but the number has fallen by 1,000, reflecting a programme of demolition of unlettable properties.
- The profile of housing association stock also changed between 2001 and 2006, with sizeable increases in the proportion of semi-detached houses (from approximately 6 to 18%), balanced by a considerable reduction in the proportion of flats/apartments from 61 per cent in 2001 to 48 per cent in 2006 as housing associations increasingly became responsible for the delivery of general needs social housing.
- In 2006 vacant properties were more likely to be single-storey houses (bungalows) (24%) or terraced houses (24%). Nineteen per cent of all vacant properties were detached houses and a further 19 per cent were flats/apartments.

Dwelling Type - Dwelling Age (Table A3.8)

The relationship between dwelling type and dwelling age reflects the development of housing construction methods over time in Northern Ireland since the nineteenth century.

- Most dwellings from the pre-1919 period were single-storey dwellings, including cottages (21%),

terraced houses (37%) or detached houses (27%); in all accounting for 85 per cent of this older stock.

- Dwellings from the inter-war period tended to be terraced houses (37%) or semi-detached houses (39%).
- The period 1945-64 was dominated by the construction of terraced houses (40%).
- However, the period 1965-80 also saw a rapid increase in the proportion of modern bungalows (29%) being built.
- In the post-1980 period bungalows were also a very common type of dwelling constructed (26%). A further 26 per cent of the total constructed were detached homes.
- In the post 1980 period 10 per cent of all dwellings constructed were flats/apartments. This proportion was nine per cent for the post-1990 period.

3.6 Summary and Conclusion

Northern Ireland's housing stock continued to grow rapidly in the five years between 2001 and 2006. The annual net increase accelerated from 9,600 (1996-2001) to 11,500 (2001-2006), reflecting the growing prosperity and confidence in the housing market. The broad geographical distribution has changed little (70% urban; 30% rural). However there was a marked change in the tenure composition of the stock. The proportion of owner-occupied stock (66%) remained static over the five year period. In contrast the proportion of privately rented stock rose rapidly to 11.5 per cent, although this also brought in its wake a growing number and proportion of vacant properties. The analysis of inter-tenure movement indicated that approximately 29,000 dwellings that were owner occupancy in 2001 entered the private rented sector by 2006. A further 4,000 Housing Executive properties also moved into the private rented sector over this period. Almost one-third (30%) of Northern Ireland's total stock was built after 1980. This age profile, however only provides a partial explanation for the significant improvements in the condition and energy efficiency of the stock which are explored in later chapters.

TABLE 4.1 HOUSEHOLD PROFILE, 2006

	Number and Percentage of Tenure							% of all Households			
	Owner Occupied	Private Rented and Others	Housing Executive	Housing Association	All Households						
Household Type											
Lone adult	48300	52.0	18350	19.8	23220	25.0	2990	3.2	92,860	(100%)	14
Two adults	66870	75.1	13510	15.2	7990	9.0	720	0.8	89,090	(100%)	14
Small family	61910	80.2	7230	9.4	7250	9.4	790	1.0	77,180	(100%)	12
Large family	57310	83.4	3670	5.3	6130	8.9	1600	2.3	68,710	(100%)	10
Large adult	74300	84.9	6930	7.9	5780	6.6	460	0.5	87,470	(100%)	13
Two person older	88610	86.5	4350	4.2	8250	8.1	1270	1.2	102,480	(100%)	16
Lone older	58780	59.7	10010	10.2	20140	20.4	9560	9.7	98,490	(100%)	15
Lone parent	8750	20.6	15810	37.3	13940	32.8	3950	9.3	42,450	(100%)	6
All Households	464830	70.6	79860	12.1	92700	14.1	21340	3.2	658,730	(100%)	100
Age of Household Reference Person											
17 - 24	6870	25.7	14360	53.7	4810	18.0	680	2.6	26,720	(100%)	4
25 - 39	96000	64.2	28920	19.3	20500	13.7	4210	2.8	149,630	(100%)	23
40 - 59	180430	75.1	20210	8.4	34120	14.2	5450	2.3	240,210	(100%)	37
60 - 74	122030	77.1	10910	6.9	20930	13.2	4310	2.7	158,180	(100%)	24
75 plus	59500	70.8	5460	6.5	12340	14.7	6690	8.0	83,990	(100%)	13
All Households	464830	70.6	79860	12.1	92700	14.1	21340	3.2	658,730	(100%)	100
Employment Status of HRP											
Employed	281850	83.8	34110	10.1	16110	4.8	4210	1.3	336,280	(100%)	51
Unemployed	10240	19.7	14740	28.3	24840	47.7	2270	4.4	52,090	(100%)	8
Retired from work	143130	74.5	12920	6.7	25910	13.5	10280	5.3	192,240	(100%)	29
Permanently sick/disabled	20250	45.3	6830	15.3	15590	34.8	2070	4.6	44,740	(100%)	7
Looking after family home	8590	29.1	8930	30.2	9550	32.3	2470	8.4	29,540	(100%)	4
Other (including student/schoolchild)	770	20.1	2330	60.7	700	18.2	40	1.0	3,840	(100%)	1
All Households	464830	70.6	79860	12.1	92700	14.1	21340	3.2	658,730	(100%)	100

Gross Annual Income											
Under £7000	41070	53.3	12830	16.7	18830	24.4	4350	5.6	77,080	(100%)	12
£7,000 - £9,999	58250	48.0	21530	17.7	33700	27.8	7810	6.4	121,300	(100%)	18
£10,000 - £14,999	91530	60.9	21690	14.4	30400	20.2	6670	4.4	150,290	(100%)	23
£15,000 - £19,999	67600	79.8	9190	10.8	6180	7.3	1770	2.1	84,740	(100%)	13
£20,000 - £29,999	80930	88.4	7990	8.7	2050	2.2	560	0.6	91,520	(100%)	14
£30,000 or more	125450	93.8	6630	5.0	1540	1.2	180	<1.0	133,800	(100%)	20
All Households	464830	70.6	79860	12.1	92700	14.1	21340	3.2	658,730	(100%)	100
Household Religion											
Protestant	247620	72.6	34450	10.1	48280	14.2	10770	3.2	341,120	100%	52
Catholic	169460	67.2	33540	13.3	39250	15.6	9910	3.9	252,160	(100%)	38
Mixed Religion	21680	75.3	5180	18.0	1610	5.6	310	1.1	28,780	(100%)	4
Other	8270	65.1	2600	20.5	1780	14.0	40	0.4	12,690	(100%)	2
None	17800	74.2	4090	17.1	1780	7.4	310	1.3	23,980	(100%)	4
All Households	464830	70.6	79860	12.1	92700	14.1	21340	3.2	658,730	(100%)	100
Other Groups											
Households with children (0 -15)	127970	67.9	26720	14.2	27310	14.5	6340	3.4	188,340	(100%)	29
Lone Parent Households	8750	20.6	15810	37.3	13940	32.8	3950	9.3	42,450	(100%)	6
Elderly Households (over 75)	59500	70.8	5460	6.5	12340	14.7	6690	8.0	83,990	(100%)	13
Lone Adult Households	48300	52.0	18350	19.8	23220	25.0	2990	3.2	92,860	(100%)	14
Unemployed or Permanently sick/disabled HRP	30490	31.5	21570	22.3	40430	41.8	4340	4.5	96,830	(100%)	15
All Households	464830	70.6	79860	12.1	92700	14.1	21340	3.2	658,730	(100%)	100

chapter four

household profile

4.1 Introduction

Northern Ireland House Condition Surveys have a household³ questionnaire section. This allows a snap shot of the relationships between key dwelling characteristics and the social and economic circumstances of households. The 2006 House Condition Survey (HCS) provides an update of the household profile, and includes an assessment of any change since the last full survey in 2001 and will also note any important changes over 10 years since the 1996 HCS.

Social survey information from the HCS is used widely among housing practitioners in areas such as the assessment of future housing needs, household tenure trends, affordability and social exclusion. It has been used to provide information for strategic decisions, in recent years in relation to the private rented sector, home improvement grants and Fuel Poverty.

The household questions are reviewed during the questionnaire design stage of each survey. Comments from surveyors and other HCS clients are considered and used to help guide changes either in the question wording, layout or in the addition of new questions on emerging housing or social topics.

The surveyors complete the household questionnaire with the household reference person⁴ or partner (if applicable), as part of the home inspections. In 2006, a total of 4,845 interviews were achieved out of a possible 4,900 interviews (physical inspections excluding vacant dwellings). This gives a very high response rate for the household survey at 99 per cent, and is consistent with previous surveys.

4.2 Dwelling Profile of Northern Ireland Households

The Bedroom Standard

The bedroom standard, as defined by the General Household Survey, is used to estimate the occupation density by allocating a standard number of bedrooms to each household in accordance with its age, gender and marital status composition and the relationship between members. A separate bedroom is allocated to each married or cohabiting

The 2006 House Condition Survey provides an update of the household profile, and includes an assessment of any change since the last full survey in 2001 and will also note any important changes over 10 years since the 1996 HCS.

³ A definition of household is included in Appendix E

⁴ A definition of household reference person is included in Appendix E

couple, any other person aged 21 or over, each pair of adolescents aged 10 to 20 of the same gender, and each pair of children, regardless of gender, less than 10 years old. Any unpaired person aged 10 to 20 is paired, if possible, with a child under 10 of the same gender, or given a separate bedroom, as is any unpaired child less than 10 years old. This standard number of bedrooms is then compared with the actual number of bedrooms available for sole use of the household and deficiencies or excesses are tabulated. The bedroom standard does not take account of bedroom size. Overcrowding is defined as falling below the bedroom standard by one or more bedrooms.

Key findings:

- Three per cent of households in Northern Ireland fell below the bedroom standard, i.e. were overcrowded in 2006. This proportion has remained unchanged since 2001 but has declined from seven per cent in 1996.

- The proportion of households meeting the bedroom standard has declined in the last 10 years. Almost one-fifth (18%) of households met the bedroom standard in 2006 compared to 23 per cent in 2001 and 25 per cent in 1996.
- Thus there has been an increase in under-occupation over time, in terms of available bedrooms from 68 per cent in 1996 to 74 per cent in 2001 and 78 per cent in 2006.

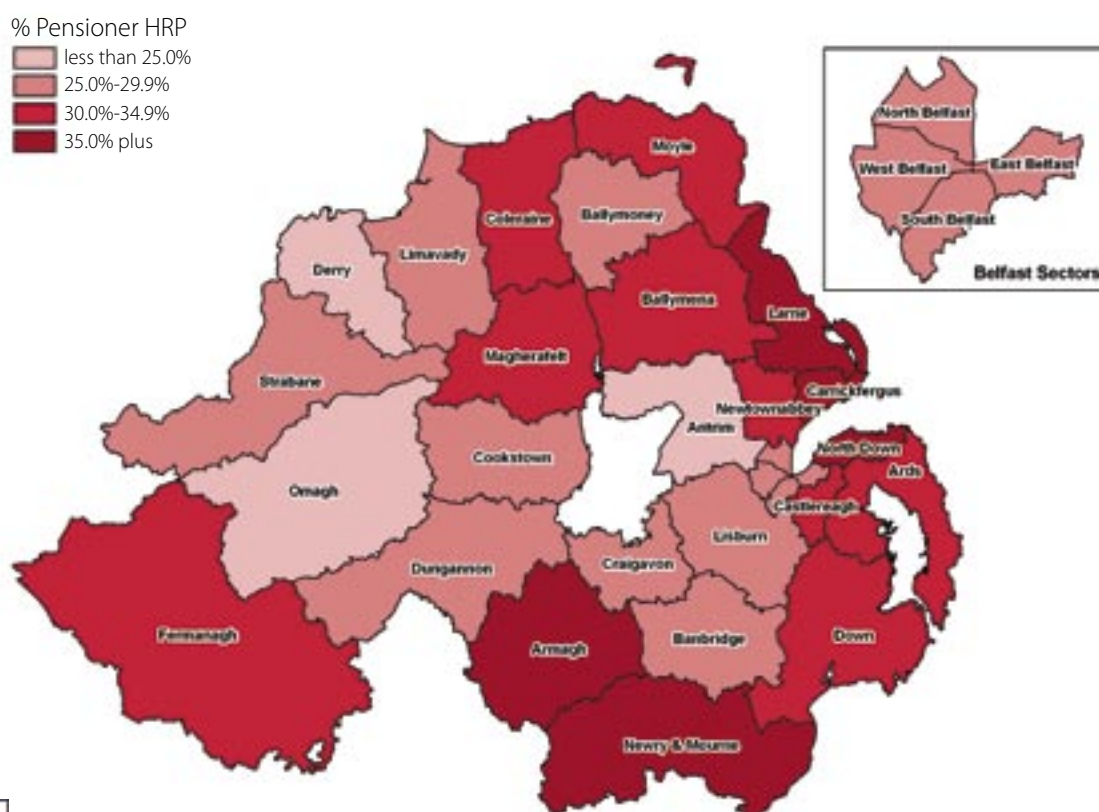
The bedroom standard was analysed by tenure, household size and religion.

The Bedroom Standard - Tenure, household size and religion

Generally, patterns were similar to findings in 2001.

- There was some variation in overcrowding from the overall average (3%) by tenure. Housing association and private rental accommodation were more likely to be overcrowded

MAP 4.1 PENSIONER HOUSEHOLD REFERENCE PERSONS BY DISTRICT COUNCIL AREA, 2006



Based upon Ordnance Survey of Northern Ireland's data with the permission of the Controller of Her Majesty's Stationery Office, © copyright and database rights NIMA ES&LA209.3

(6% and 5% respectively). As expected, the larger the household the more likely it was to be overcrowded. Two per cent of three person households were overcrowded compared to 11 per cent of four or more person households. Catholic households (4%) were more likely to be overcrowded compared to Protestant households (2%) but this is largely a reflection of the different household sizes and age structures of the two groups.

- Households meeting the bedroom standard varied by tenure. Less than one-sixth (14%) of owner occupied households met the standard compared to 57 per cent of housing association households. More than one-fifth (21%) of Catholic households met the standard compared to 17 per cent of Protestant households.
- In the case of two or more bedrooms above the standard, more than one-half (53%) of owner occupied households were under-occupied compared to one-third (35%) of private rental, 20 per cent of Housing Executive and six per cent of housing association households. As expected, as household size increased the proportions under-occupying decreased. Finally, in terms of religion almost half (47%) of Protestant households passed the bedroom standard by two or more bedrooms compared to 40 per cent of Catholic households.

Age of Household Reference Person

Key findings:

- Almost three-fifths (59%) of household reference persons (HRP) were aged between 25 and 59 and more than one-third (37%) were 60 or older (13% were 75 or older).
- As in 2001, 30 per cent of household reference persons were pensioners⁵. Map 4.1 shows how the proportions of pensioners varied by district council area.
- Only four per cent of household reference persons were aged between 17 and 24.
- Table 4.2 shows the age profile of the household reference person in 1996, 2001 and 2006. Overall,

there has been little change in the age groups. The 25 to 39 age group shows a decrease of three percentage points between 1996 and 2006 but this is within sample error range.

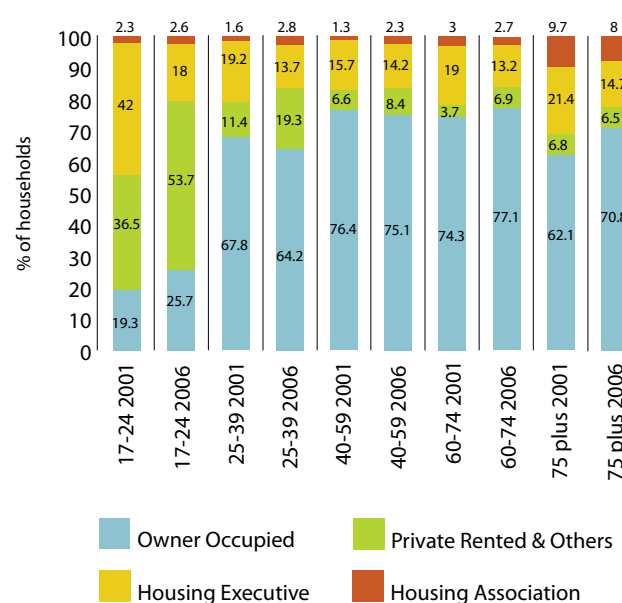
TABLE 4.2 AGE PROFILE OF THE HOUSEHOLD REFERENCE PERSON, 1996-2006

Age band	1996 HCS %	2001 HCS %	2006 HCS %
18-24	3	3	4
25-39	26	24	23
40-59	37	37	37
60-74	23	23	24
75+	12	13	13
Total	100%	100%	100%

Tenure, dwelling age, dwelling type and location were analysed by the age of the household reference person.

Age of the Household Reference Person - Dwelling Tenure (Table A4.1)

FIGURE 4.1 AGE OF HOUSEHOLD REFERENCE PERSON AND TENURE, 2001-2006



Affordability has become a major issue since 2001. The House Condition Survey shows that the

⁵ This figure is based on age and gender (aged 65 or older for males and aged 60 or older for females)

proportion of younger people in the private rented sector has risen while rates of owner occupation have lowered, particularly for those households headed by reference persons aged between 25 and 39. Conversely, the proportion of younger people in the social rented sector has declined substantially since 2001. The following bullet points summarize the dynamic nature of tenure and age of household reference 2001 to 2006.

- Above average proportions of household reference persons aged between 60 and 74 (77%) and 40 and 59 (75%) lived in owner occupied homes. This pattern was seen in 1996 and 2001.
- In 2006 the proportion of household reference persons aged 75 plus in owner occupation was similar to the overall average (71%). This is a change since 2001 when the proportion was much lower than the overall average (62% compared to 70% overall). This may to an extent reflect an increase in the numbers buying socially rented accommodation and/or remaining in their own homes rather than moving into housing association accommodation.
- There has been a marginal decline in home ownership for household reference persons aged between 25 and 39. The proportion of home ownership for this group in 2001 was 68 per cent but in 2006 the proportion was 64 per cent. In addition, the proportion of reference persons aged 25 to 39 in the private rented sector has increased from 11 per cent in 2001 to 19 per cent in 2006.
- Since 2001 the private rented sector has increased from eight per cent (49,400 homes) to 12 per cent (80,900 homes). Previous House Condition Surveys have shown that younger households are disproportionately represented in the private rented sector. The 2006 Survey shows that this trend continues unabated. Although a small group, more than one-half (54%) of households headed by 17 to 24 year olds lived in private rented accommodation in 2006 compared to 37 per cent in 2001. Indeed, more than one-half (54%) of the private rented sector in 2006 was

headed by reference persons aged between 17 and 39, up from 47 per cent in 2001.

- As a result of house sales and to a smaller extent stock clearance, the proportion of Housing Executive dwellings has declined from 19 per cent (114,900 homes) in 2001 to 14 per cent (92,700 homes) in 2006. This reduction in stock has had an impact on the rates of the youngest and oldest age groups.

The proportion of household reference persons aged between 17 and 24 living in Housing Executive accommodation in 2006 was 18 per cent; in 2001 the figure was 42 per cent. Only 14 per cent of household reference persons aged between 25 and 39 lived in this tenure in 2006 compared to 19 per cent in 2001.

The proportion of household reference persons aged 75 or older living in Housing Executive dwellings in 2006 was 15 per cent; in 2001 the figure was 21 per cent.

Overall, in 2006 almost three-fifths (59%) of Housing Executive accommodation was headed by reference persons aged between 40 and 74; up from 54 per cent in 2001 and 55 per cent in 1996. A further 27 per cent of Housing Executive accommodation was headed by the 17 to 39 age group; a decrease from 31 per cent in 2001 and from 32 per cent in 1996. Finally, 13 per cent of this tenure was headed by the oldest age group (75 plus); a decrease from 15 per cent in 2001.

- Again the 2006 HCS confirmed the established pattern of a much higher proportion of household reference persons aged 75 or older living in housing association accommodation (10% compared to 3% overall).

Age of Household Reference Person - Dwelling Age (Table A4.2)

There has been little change in the overall proportions of stock by dwelling age between 2001 and 2006 (See Chapter 3). Analysis of age of HRP by dwelling age confirms previous trends.

- In 2006, 14 per cent of the stock had been built prior to 1919 (16% in 2001). There was little

variation from this average by age group, except for the oldest age band (75 plus 18%; 21% in 2001).

- In 2006, above average proportions of younger household reference persons lived in newer stock; ranging from 38 per cent of households headed by persons aged between 25 and 39 to only 21 per cent of households headed by persons aged 75 or older (30% overall).
- This pattern was replicated for post 1990 stock (18% overall), ranging from 30 per cent (25 to 39 years old) to only nine per cent (75 plus).

Age of Household Reference Person - Dwelling Type (Table A4.3)

Overall proportions of the different dwelling types show little change since 2001, findings reflect tenure and again show similar patterns to 2001.

- Older household reference persons were over-represented in single storey dwellings. Overall, one-quarter (23%) of the occupied stock was classified as single storey dwellings. This varied from 33 and 31 per cent for those households with reference persons aged between 60 and 74 and 75 or older respectively, to only 12 and eight per cent for those households with reference persons aged between 25 and 39 and 17 and 24 respectively.
- Generally, the rates of household reference persons living in terraced and semi-detached dwellings decreased as age increased.

One-third (33%) overall lived in terraced housing but this ranged from 54 per cent for household reference persons aged 17 to 24 (although a small group overall) to 26 per cent for household reference persons aged 75 or older.

One-fifth (20%) of households lived in semi-detached dwellings, ranging from 28 per cent for household reference persons aged 25 to 39 to 15 per cent for those aged between 60 and 74.

- Detached dwellings in 2006 confirm established patterns. Household reference persons aged

between 17 and 24 were least likely to occupy detached housing (less than 1% in 2006) and household reference persons aged between 40 and 59 were most likely to occupy detached housing (22%; 17% overall).

- As in 2001, the youngest (13%) and oldest (13%) household reference persons were more likely to live in flats/apartments compared to other age groups (7% for all households).

Age of Household Reference Person - Location⁶ (Table A4.4)

Classification of areas changed in 2006 so comparisons with 2001 are not valid.

- Although a small group, households with reference persons aged between 17 and 24 had the highest rate of urban living (86% compared to 71% overall). Other age groups showed little variation from the overall average.
- The reverse was true for rural areas in that households with reference persons aged between 17 and 24 had the lowest rate (14% compared to 29% overall). Again other age groups showed little variation from the overall rural average.
- The pattern for the youngest age group reflected in figures for the Belfast Metropolitan Area (45% compared to 40% overall) and for isolated rural areas (4% compared to 14% overall).

Household Type

People living in the households were classified into eight types according to the number and ages of the members. A description of each household type and results from earlier House Condition Surveys are included in Table 4.3.

Key findings:

- Table 4.3 shows that household types varied from six per cent for lone parent households to 16 per cent for two person older households.
- Two person older, two adults and lone adult have all shown marginal increases since 1996. Family type households have all shown marginal decreases, except for large family households

⁶ See appendix E for note on location change between 2001 and 2006

TABLE 4.3 HOUSEHOLD TYPES, 1991 TO 2006

	2006 HCS %	2001 HCS %	1996 HCS %	1991 HCS %
Lone Adult (one adult below pensionable age - 65 for men, 60 for women)	14	12	12	9
Two Adult (two people, related or unrelated, below pensionable age - 65 for men, 60 for women)	14	12	12	12
Lone Parent (one adult living with one or more dependent children aged under 16)	6	6	6	5
Small Family (two adults, related or unrelated, living with one or two dependent children aged under 16)	12	13	12	14
Large Family (two adults, related or unrelated, living with three or more dependent children aged under 16; OR three or more adults living with one or more dependent children aged under 16)	10	13	15	17
Large Adult (three or more adults, related or unrelated, and no dependent children aged under 16)	13	15	15	15
Two Person Older (two people, related or unrelated, at least one of whom is of pensionable age - 65+ for men, and 60+ for women)	16	14	13	13
Lone Older (one person of pensionable age or older, 65+ for men, 60+ for women)	15	15	15	15
Total	100	100	100	100

which shows a decrease of five percentage points since 1996.

- Lone parent households have remained around six per cent since 1991. In 2006 this equated to approximately 42,500 households⁷. Approximately 71,000 children (less than 16 years old) belonged to households designated as lone parent. (See table 4.10 for more detailed sub-group analysis).

Tenure, dwelling age, dwelling type and location were analysed by household type categories.

Household Type - Tenure (Table A4.5)

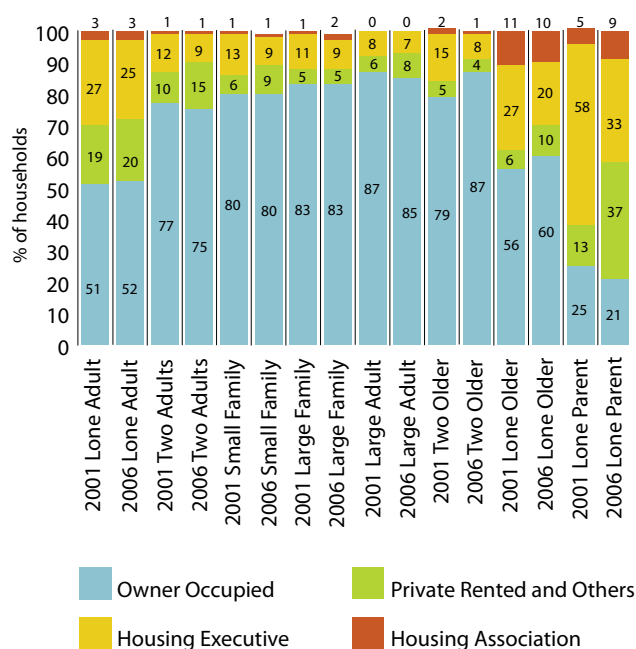
Since 2001 the main changes in tenure have been in the private and social rented sectors. There have been a number of changes which are highlighted below, but generally patterns were similar to findings in 2001 and in 1996.

- Overall 71 per cent of all households owned their home. Figure 4.2 shows that home ownership was lowest among lone parent (21%), lone adult (52%)

and lone older (60%) households and highest among two person older, large adult and large family households (around 85%).

- Two older households show an increase in owner occupation from 79 per cent in 2001 to 87 per cent in 2006. This is consistent with findings by age.
- The proportion of lone parents in the private rented sector has increased dramatically over time (from 10% in 1996, 13% in 2001 to 37% in 2006). Moreover there has been a corresponding decrease in the proportion of lone parents living in Housing Executive property (from 64% in 1996, 58% in 2001 to 33% in 2006). This may be partly a reflection of age as young household reference persons showed the same pattern. However, additional research into the private rented sector suggests lone parents who moved 2001 to 2006 chose to rent privately because waiting lists for social housing were too long and the standard

FIGURE 4.2 HOUSEHOLD TYPES AND TENURE, 2001-2006



of accommodation and locations offered by the private rented sector were seen as preferable⁸.

- Higher than average proportions of lone adults and two adults rented privately (20% and 15% compared to 12% overall). While the proportion of lone adults renting privately has remained the same since 2001, the proportion of two adults has increased from 10 per cent in 2001.
- Above average proportions of lone parents (33%), lone adults (25%) and lone older (20%) households occupied Housing Executive dwellings (14% overall). Conversely, only seven per cent of large adult households lived in Housing Executive properties. This pattern has remained unchanged since 2001.
- Over time there has been an increase in single person occupation of Housing Executive dwellings (from 38% in 1996, 39% in 2001 to 47% in 2006). This is consistent with findings from other research conducted by the Housing Executive's Research Unit (2006 CTOS⁹; 43%).

A profile of these households (approximately 43,000) shows that 62 per cent were aged between 40 and 74 and 23 per cent were aged 75 or older, one-half (50%) were male and half were female. Two-fifths (39%) were single (never married), one-third (33%) were separated or divorced and 28 per cent were widowed. Only 11 per cent were working full or part time or self employed, and 43 per cent were retired. Almost three-fifths (58%) had a long term illness that limited their daily activities and 71 per cent had income of less than £10,000 per annum.

- Above average proportions of lone older (10%) and lone parent (9%) households lived in housing association accommodation. Again, this pattern has remained unchanged since 2001.

Household Type - Dwelling Age (Table A4.6)

Overall, findings were consistent with 2001.

- One-third (30%) of all dwellings were built after 1980. Above average proportions of large family (44%), small family (42%) and lone parent households (36%) lived in the newest stock. Two person older households were least likely to live in the newest stock (19%).
- Above average proportions of two older households occupied post war (1945-1964) housing (31% compared to 21% overall).
- The oldest stock (pre 1919) showed little variation by household type.

Household Type - Dwelling Type (Table A4.7)

As with dwelling age, overall proportions of dwelling type showed little change over time. Patterns were consistent with 2001 and links with tenure were evident.

- Overall, 33 per cent of all households occupied terraced housing. The most common household type living in terraced accommodation was lone parent (55%).
- Two person older and lone older (around 32% each) were more likely than other household types to occupy single storey houses.

⁸ Household Profile Report of the Private Rented Sector, 2006

⁹ The Continuous Tenant Omnibus survey is an annual study of Housing Executive Tenants

- The most common household types living in detached housing were large and small families and large adult (31%, 24% and 23% respectively).
- High proportions of lone adult (20%) and lone older (16%) households occupied flats (7% overall).

Household Type - Location (Table A4.8)

- Urban areas showed some variation by household type ranging from 83 and 76 per cent for lone parent and lone adult households to 66 per cent for large adult and 59 per cent for large family. Large family households were least likely to live in the BMA (29% compared to 40% overall). This reflects other research findings indicating the ongoing desire of families with children to have homes with gardens and difficulties many families have had in recent years in finding this type of accommodation in and close to Belfast as house prices in the BMA have risen rapidly.
- Six per cent of all households were lone parent families. Above average proportions of lone parent families were found in Limavady (12%), North Belfast (12%), Derry (10%) and West Belfast (9%). Analysis of all lone parent households shows that 40 per cent were located in district and other towns compared to 31 per cent overall. (Table A4.9).
- Large family households were more likely than other household types to live in rural areas (41% compared to 29%).
- Isolated rural areas showed some variation by household type ranging from 26 per cent for large family and 19 per cent for large adult compared to only four per cent for lone parent households.

4.3 Social and Economic Profile of Northern Ireland Households

The key socio-economic characteristics examined are:

- The employment status of the household reference person;
- Household income;
- Household religion.

Employment Status of the Household Reference Person

Key findings:

- More than one-half (51%) of household reference persons were employed (37% working full time, 6% working part-time and 8% self employed) and eight per cent were unemployed (3% seeking work and 5% not seeking work).
- Almost three out of ten (29%; 29% in 2001) household reference persons were retired, seven per cent were permanently sick or disabled and five per cent were looking after the family home.
- Overall proportions of household reference persons in the different employment categories were broadly in line with findings from the 2001 HCS, and show some increases/decreases in employment when compared to the 1996 findings.

TABLE 4.4 COMPARISONS OF EMPLOYMENT GROUPS, 1996 - 2006

Employment category	Household Reference Persons (%)		
	2006 HCS	2001 HCS	1996 HCS
Self-employed	8	9	10
Working full-time	37	36	33
Working part-time	6	5	5
Not working but seeking work	3	4	7
Not working and not seeking work	5	4	3
Retired from work	29	29	29
Student	<1 ¹⁰	1	1
Permanently sick or disabled	7	7	6
Looking after family home	5	6	5
Other	<1 ¹¹	<1	1
Total	100	100	100

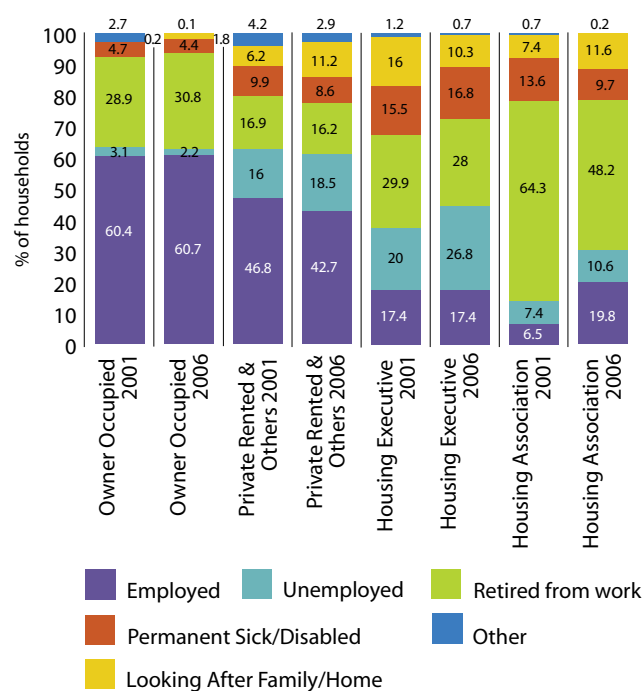
Tenure, dwelling age, dwelling type and location were analysed by the employment status of household reference persons.

Employment Status of Household Reference Person - Tenure (Table A4.10)

Generally findings showed similar patterns to 2001; however there is some evidence of higher unemployment and looking after the family home in the private rented sector. An increase in lower income households in the private rented sector supports this (see income analysis).

- Overall, more than half (51%) of household reference persons were in employment, this varied by tenure from 61 per cent for owner occupied dwellings to only 17 per cent for Housing Executive dwellings.
- As in 2001, home ownership was highest among household reference persons who were self employed (94%) and working full time (84%). Consistent with age and household type findings there was a marginal increase in the numbers of retired household reference persons in home ownership between 2001 and 2006 (70% to 75%).
- Above average proportions of household reference persons categorised as unemployed (48%), permanently sick/disabled (35%), looking after the family home (32%) occupied Housing Executive dwellings (14% overall).
- Above average proportions of household reference persons who were looking after the family home (30%) and unemployed (28%) lived in privately rented accommodation (12% overall). The comparative figures for 2001 were 9 per cent and 17 per cent. Both these groups show an increase in the private rented sector between 2001 and 2006.
- Figure 4.3 shows tenure within each employment group and changes since 2001.

FIGURE 4.3 EMPLOYMENT STATUS OF HRP AND TENURE, 2001-2006



Employment Status of Household Reference Persons - Dwelling Age (Table A4.11)

Generally, findings were consistent with 2001.

- Overall, 14 per cent of all dwellings were built before 1919. Generally there was little variation by employment group except for reference persons who were self-employed (19%).
- Household reference persons who were in employment (37%) were most likely to occupy post 1980 stock and those classified as retired were least likely (21%).

Employment Status of Household Reference Person - Dwelling Type (Table A4.12)

There was some variation in dwelling type by employment group and these show links with tenure. Again patterns were consistent with 2001.

- Terraces showed variation by employment group from only 12 per cent for the self employed group to 58 per cent for unemployed households. This is linked with tenure where half (50%) of all Housing Executive properties were terraces.
- As in 2001, above average proportions of retired (32%), self employed (31%) or permanently sick or disabled (27%) household reference persons lived in single storey houses (compared to 23% overall).
- Employed (24%) and in particular self-employed (42%) household reference persons were more likely to occupy detached housing. Again this is consistent with findings in 2001.
- Above average proportions of households with heads who were unemployed (14%), retired (11%) or permanently sick or disabled (11%) lived in flats (7% overall).

*Employment Status of Household Reference Person
- Location (Table A4.13)*

- There was some variation in urban living by employment groups. Only 45 per cent of household reference persons who were self employed lived in urban areas compared to 81 per cent of reference persons who were unemployed.
- Household reference persons who were unemployed (43%) or retired (43%) were more likely to live in the Belfast Metropolitan Area (BMA).
- Less than one-sixth (14%) of all households lived in isolated rural areas. As in 2001, self-employed household reference persons were more likely to live in isolated rural areas (55%) reflecting the inclusion of farmers in this employment group.

Annual Household Income

The HCS defines household income as the total annual income before tax for the respondent and partner (if applicable). This was to include all income from savings, employment, benefits, or other sources. Income was recorded in bands and these have been grouped together for ease when reporting.

Key findings:

- Overall, almost one-third (30%) of all households had an annual income of less than £10,000. A smaller proportion of households had an annual income of less than £7,000 (12%). Analysis of this group shows that more than three-fifths (62%) were single person households, 55 per cent were aged sixty or older, 53 per cent lived in owner occupied dwellings and 24 per cent in Housing Executive dwellings.
- Almost one-quarter (23%) of households had an annual income of £10,000 to £14,999.
- Less than one-sixth (13%) of households had incomes of between £15,000 and £19,999, 14 per cent of households had between £20,000 and £29,999 and 20 per cent had household incomes of £30,000 or more.
 - The following table shows changes by income band 1996 to 2006 and compares 2006 results with the 2006/7 Northern Ireland Continuous Household Survey (CHS)¹².

TABLE 4.5 COMPARISON OF ANNUAL INCOME BANDS HCS AND CHS (2006-07)

Income Band	HCS 2006 (%)	CHS (2006/7) (%)	HCS 2001 (%)	HCS (1996) (%)
Under £3,000	<1	2	2	6
£3,000 - £6,999	11	14	20	36
£7,000 - £9,999	18	15	14	13
£10,000 - £14,999	23	20	19	15
£15,000 - £19,999	13	8	16	11
£20,000 - £29,999	14	17	18	10
£30,000 - £39,999	13	8	6	5
£40,000 - £49,999	3	7	2	2
£50,000 or more	4	9	3	1
Total	100	100	100	100

Tenure, dwelling age, dwelling type and location were analysed by annual household income.

Annual Household Income - Tenure (Table A4.14)

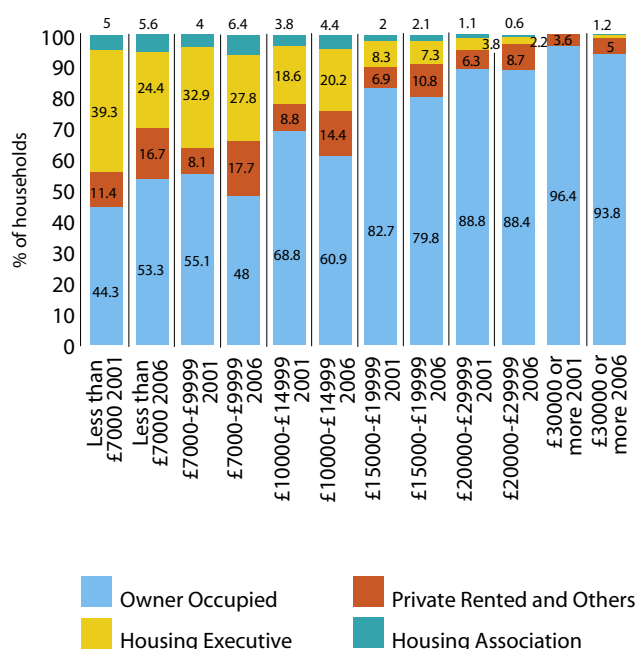
Overall patterns were consistent with 2001.

¹² Although the survey methodology and income brands were not directly comparable with the HCS findings provide a useful contrast. The sample size of the CHS was 1868.

The private rented sector shows an increase in lower income households which is consistent with the employment status changes.

- Figure 4.4 clearly shows that as household income increased so did the likelihood of owner occupation; ranging from 53 per cent of households with an annual income of less than £7,000 to 94 per cent of households with an annual income of £30,000 or more. However, owner-occupiers with an annual income of less than £7,000 were more likely to own their home outright (77%; 76% in 2001) compared to owner-occupiers with an annual income of £30,000 or more (22%; 21% in 2001). This is largely due to the older age profile of lower income households.

FIGURE 4.4 ANNUAL HOUSEHOLD INCOME (GROSS) AND TENURE, 2001 - 2006



- Generally, proportions of private renting decreased as annual income increased. Consistent with earlier findings on employment changes, figure 4.4 shows that since 2001, there has been an increase in lower income households within the private rental sector. The proportion of private rental sector households in the two lowest

income bands increased between 2001 and 2006 (11% to 17% and 8% to 18%)

- Similarly, proportions of social renting decreased as annual income increased. One-quarter (24%) of households with less than £7,000 per annum lived in Housing Executive accommodation compared to one per cent of households with annual income of £30,000 or more per annum.
- Approximately, three-fifths (57%) of Housing Executive households had an annual income of less than £10,000, housing association households were similar (57%). The figure for private rental households was 43 per cent.

Annual Household Income - Dwelling Age (Table A4.15)
As in 2001, higher income households were more likely to live in the newest dwellings.

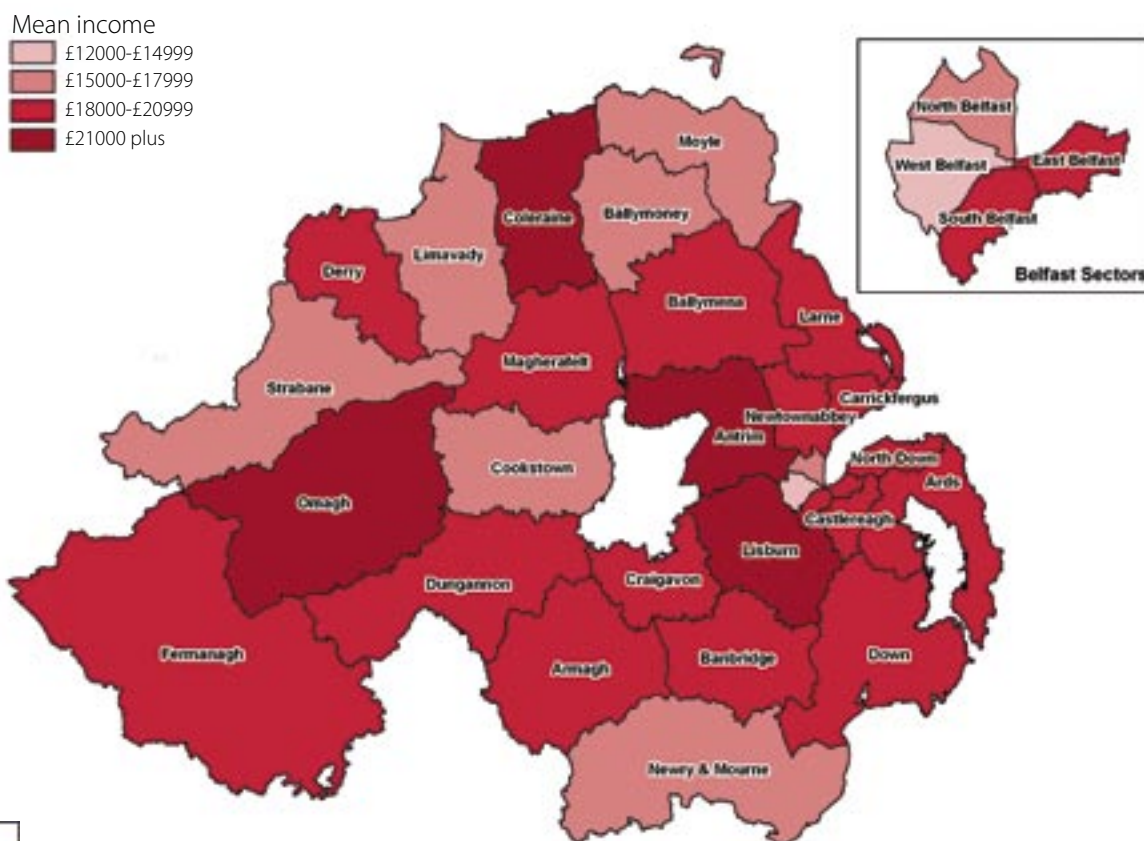
- One-fifth (20%) of households with an annual income of less than £7,000 lived in dwellings built post 1980 compared to 45 per cent of households with an annual income of £30,000 or more.
- One-sixth (14%) of stock was pre 1919 rising to 21 per cent for households with less than £7,000 per annum, showing links with the above average proportion of 75 year olds.
- More than one-third (36%) of all pre 1919 dwellings were lived in by households with annual incomes between £10,000 and £19,999, 33 per cent were occupied by households with less than £10,000 per annum and 20 per cent by households with annual incomes of £30,000 or more.

Annual Household Income - Dwelling Type (Table A4.16)

Overall, patterns have remained consistent since 1996 and show links with tenure.

- Generally, higher income groups were more likely to live in detached (38%; £30,000 or more per annum) and semi detached (25%; £30,000 or more per annum) housing.
- Lower income groups were more likely to live in terraced housing (44%; £7,000-£9,999) and flats (17%; less than £7,000 per annum).

MAP 4.2 MEAN HOUSEHOLD INCOME BY DISTRICT COUNCIL AREA, 2006



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- There was little variation in proportions occupying single storey dwellings by household income except for those with the highest income. These households were least likely to occupy this dwelling type (19% compared to 23% overall).

Annual Household Income - Location (Table A4.17)

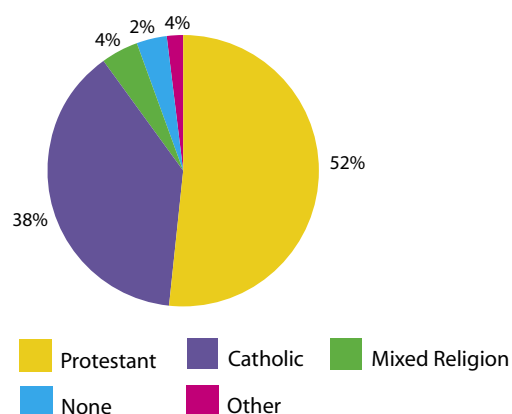
- Urban areas showed little variation by income group. Households with incomes of between £7,000 and £9,999 had the highest proportion living in urban areas (77% compared to 71% overall).

- Rural areas also showed little variation by household income. Households with incomes of between £7,000 and £9,999 were least likely to live in rural areas (24% compared to 29% overall). Households with incomes of £30,000 or more had the highest proportion living in isolated rural areas (19% compared to 14% overall).

Household Religion

The Survey gathered information on the religious make-up of the household and this is summarised in Figure 4.5. Respondents were asked for the religion of the household.

FIGURE 4.5 HOUSEHOLDS BY RELIGION, 2006



Key findings:

- Fifty-two per cent (54% in 2001 and 56% in 1996) of respondents designated their household religion as Protestant and 38 per cent (38% in 2001 and 36% in 1996) as Catholic.
- Small proportions of respondents described their household religion as 'Mixed' (Protestant & Catholic 4%), 'None' (4%) and 'Other' (2%).

Tenure, dwelling age, dwelling type and location were analysed by household religion.

Household Religion - Tenure (Table A4.18)

Overall the tenure pattern by religion was similar to 2001.

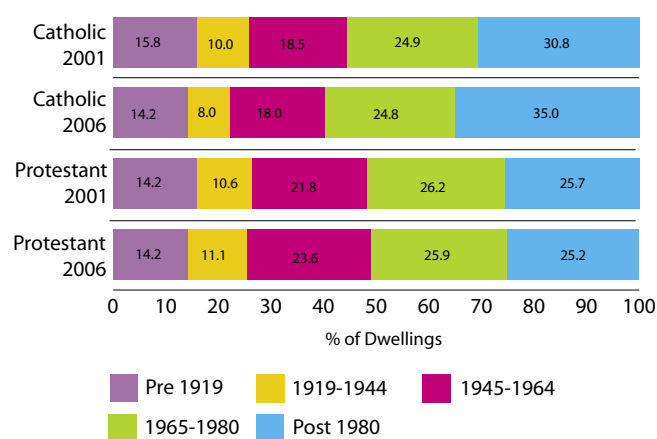
- Slightly higher proportions of Protestant (73%) compared to Catholic (67%) households owned their homes. The proportions in 2001 were 71 per cent and 69 per cent respectively. Analysis of all owner occupied households showed that more than half were Protestant (53%) and 37 per cent were Catholic, reflecting figures for the whole stock (52% and 38%, respectively).
- Around one-tenth of Catholics (13%) and Protestants (10%) lived in privately rented accommodation. Although small groups, high proportions of households described as 'Other' (21%), mixed (18%) and no religious affiliation lived in privately rented accommodation (17%). Analysis of the private rented stock as a whole

showed similar proportions of Protestant (43%) and Catholic (42%) households.

- Variation by religion in Housing Executive dwellings has converged over time. In 1996, 28 per cent of Catholic households occupied Housing Executive dwellings. This decreased to 21 per cent in 2001 and to 16 per cent in 2006. The comparative figures for Protestant households were 23 per cent in 1996, 19 per cent in 2001 and 14 per cent in 2006. Analysis of the Housing Executive stock as a whole showed that more than half were Protestant (52%) and more than two-fifths (42%) were Catholic households.
- As in 2001, similar proportions of Protestant and Catholic households lived in Housing Association dwellings (3% and 4% respectively). Analysis of housing association stock as a whole showed similar proportions of Protestant (50%) and Catholic (46%) households.

Household Religion - Dwelling Age (Table A4.19)

FIGURE 4.6 HOUSEHOLD RELIGION AND AGE OF DWELLING, 2001 - 2006



- The 2001 Survey noted that proportionately more Catholic than Protestant households lived in new dwellings. This trend continues in 2006. One-third (35%) of Catholic households compared to one-quarter (25%) of Protestant households lived in newer stock (post 1980). Figure 4.6 provides 2001 figures for comparison.

- Equal proportions of Catholic (14%) and Protestant (14%) households lived in the oldest stock (pre-1919). Again there has been little change since 2001.

Household Religion - Dwelling Type (Table A4.20)

In 1996 and in 2001 the HCS showed that higher proportions of households described as Catholic were found in terraced housing and higher proportions of households described as Protestant were found in detached housing. However, by 2006 these disparities no longer existed.

- Equal proportions of Protestant (17%) and Catholic (17%) households lived in detached housing. The equivalent figures in 2001 were 18 per cent and 15 per cent and in 1996 they were 17 per cent and 14 per cent.
- Equal proportions of Protestant (33%) and Catholic (33%) households lived in terraced housing. The equivalent figures in 2001 were 30 per cent and 33 per cent and in 1996 they were 33 per cent and 36 per cent.
- Across all other dwelling types there was no difference by the two main religious groups in Northern Ireland.

Household Religion - Location (Table A4.21)

As expected there were differences between the two main religious groups in location

- Under the new classification of urban and rural almost three-quarters (74%) of Protestant households lived in urban areas compared to 63 per cent of Catholic households.

- Further analysis of the urban figures shows that almost one-half (48%) of Protestant households lived in the BMA compared to only 25 per cent of Catholic households. Moreover this reversed for smaller urban settlements, 26 per cent of Protestant households lived in District or other towns compared to 38% of Catholic households.
- Almost two-thirds (63%) of occupied properties in the BMA, taken as a whole, contained Protestant households and only 24 per cent were Catholic.
- An above average proportion of Catholic households (37%) lived in rural areas compared to Protestant households (26%; 29% overall). This pattern followed through for isolated rural with 19 per cent of Catholic households compared to 12 per cent of Protestant households (14% overall).

4.4 Profiles of Household Sub-Groups

The decline of the traditional nuclear family and the rise of single person households have been well documented. Analyses of household trends are important for the planning of future housing requirements.

This next section provides a synoptic analysis of a number of household sub-groups that are of particular importance in understanding the housing market and estimating the need and demand for housing. A list of the sub-groups is provided in Table 4.6. The socio-economic circumstances, for each sub-group, along with key variables such as tenure, age, location and dwelling type are compared with the occupied stock as a whole in tables 4.7 to 4.11.

Key changes 2001-2006 follow after the tables.

TABLE 4.6 HOUSEHOLD SUB-GROUPS, 1996-2006

Sub- Groups	2006		2001		1996	
	%	No	%	No	%	No
Households with children (dependent child(ren) under 16; includes lone parent households)	29	188,300	32	193,100	33	186,000
Lone Parent Households (sole adult living with dependent child(ren) under 16)	6	42,450	6	37,000	6	33,000
Households headed by a person aged 75 years or older	13	83,990	13	81,500	12	69,000
Lone Adult Households (non-pensionable, under 65 for men and under 60 for women)	14	92,860	12	73,900	12	70,000
Households headed by person who is unemployed or permanently sick/disabled	15	96,830	15	90,600	17	97,000

TABLE 4.7 ALL HOUSEHOLDS WITH CHILDREN, 2006

	% of Households		% of Households	
	in sub group	in whole survey	in sub group	in whole survey
by Age of Household Reference Person				
17-24	7	4	13260	26720
25-39	46	23	87160	149630
40-59	45	36	84540	240210
60-74	2	24	3170	158180
75 plus	0	13	210	83990
by Employment Status of HRP				
Employed	73	51	137140	336280
Unemployed	11	8	20740	52090
Retired from work	1	29	1640	192240
Permanently sick/disabled	4	7	7500	44740
Other (including keeping house, student)	11	5	21320	33380
by Annual Household Income				
Under £7,000	4	12	8330	77080
£7,000-£9,999	14	18	25570	121300
£10,000-£14,999	19	23	35170	150290
£15,000-£19,999	14	13	26710	84740
£20,000-£29,999	17	14	31880	91520
£30,000 or more	32	20	60680	133800
by Religion				
Protestant	43	52	81280	341120
Catholic	44	38	83260	252160
Mixed Religion	7	4	12900	28780
Other/None	6	6	10900	36670
by Tenure				
Owner Occupied	68	71	127970	464830
Private Rented	14	12	26720	79860
Housing Executive	15	14	27310	92700
Housing Association	3	3	6340	21340
by Construction Date				
Pre 1919	13	14	23780	95160
1919-1944	9	10	17530	66490
1945-1964	15	21	28060	135340
1965-1980	22	25	41140	163650
Post 1980	41	30	77830	198090
by Settlement Type				
BMA	35	40	66630	260100
District Town/Other Town	34	31	64340	205490
Small Rural Settlement	15	15	27370	99590
Isolated Rural	16	14	30000	93550
by Dwelling Type				
Bungalow	15	23	29020	149490
Terraced House	36	33	68180	214640
Semi-Detached House	24	20	45800	132810
Detached House	22	17	41430	114250
Flat/Apartment	2	7	3910	47540

TABLE 4.8 LONE PARENT HOUSEHOLDS, 2006

	% of Households		% of Households	
	in sub group	in whole survey	in sub group	in whole survey
by Age of Household Reference Person				
17-24	19	4	7920	26720
25-39	60	23	25590	149630
40-59	21	36	8950	240210
60-74	0	24	0	158180
75 plus	0	13	0	83990
by Employment Status of HRP				
Employed	35	51	14790	336280
Unemployed	25	8	10740	52090
Retired from work	0	29	0	192240
Permanently sick/disabled	5	7	2280	44740
Other (including keeping house, student)	35	5	14650	33380
by Annual Household Income				
Under £7,000	10	12	4270	77080
£7,000-£9,999	40	18	16790	121300
£10,000-£14,999	33	23	14030	150290
£15,000-£19,999	11	13	4700	84740
£20,000-£29,999	5	14	2300	91520
£30,000 or more	1	20	370	133800
by Religion				
Protestant	46	52	19490	341120
Catholic	46	38	19340	252160
Mixed Religion	2	4	980	28780
Other/None	6	6	2650	36670
by Tenure				
Owner Occupied	21	71	8750	464830
Private Rented	37	12	15820	79860
Housing Executive	33	14	13940	92700
Housing Association	9	3	3950	21340
by Construction Date				
Pre 1919	11	14	4540	95160
1919-1944	10	10	4110	66490
1945-1964	16	21	6740	135340
1965-1980	28	25	11750	163650
Post 1980	36	30	15320	198090
by Settlement Type				
BMA	43	40	18280	260100
District Town/Other Town	40	31	16900	205490
Small Rural Settlement	13	15	5690	99590
Isolated Rural	4	14	1590	93550
by Dwelling Type				
Bungalow	9	23	3900	149490
Terraced House	55	33	23170	214640
Semi-Detached House	26	20	11200	132810
Detached House	3	17	1470	114250
Flat/Apartment	6	7	2720	47540

TABLE 4.9 ELDERLY HOUSEHOLD REFERENCE PERSONS (AGED 75 OR OLDER), 2006

	% of Households		% of Households	
	in sub group	in whole survey	in sub group	in whole survey
by Household Size				
1	60	29	50460	191350
2	34	32	28730	213590
3	5	16	3870	101910
4	1	14	810	93600
5	0	9	120	58280
by Employment Status of HRP				
Employed	2	51	1360	336280
Unemployed	0	8	0	52090
Retired from work	92	29	77470	192240
Permanently sick/disabled	3	7	2460	44740
Other (including keeping house, student)	3	5	2700	33380
by Annual Household Income				
Under £7,000	24	12	20560	77080
£7,000-£9,999	35	18	29780	121300
£10,000-£14,999	30	23	25250	150290
£15,000-£19,999	7	13	5560	84740
£20,000-£29,999	3	14	2260	91520
£30,000 or more	1	20	580	133800
by Religion				
Protestant	66	52	55150	341120
Catholic	32	38	26830	252160
Mixed Religion	0	4	310	28780
Other/None	2	6	1700	36670
by Tenure				
Owner Occupied	71	71	59500	464830
Private Rented	6	12	5460	79860
Housing Executive	15	14	12340	92700
Housing Association	8	3	6690	21340
by Construction Date				
Pre 1919	18	14	15460	95160
1919-1944	11	10	9620	66490
1945-1964	30	21	24810	135340
1965-1980	20	25	16920	163650
Post 1980	20	30	17180	198090
by Settlement Type				
BMA	42	40	35310	260100
District Town/Other Town	28	31	23300	205490
Small Rural Settlement	14	15	11790	99590
Isolated Rural	16	14	13590	93550
by Dwelling Type				
Bungalow	31	23	26030	149490
Terraced House	26	33	21540	214640
Semi-Detached House	16	20	13580	132810
Detached House	15	17	12310	114250
Flat/Apartment	13	7	10530	47540

TABLE 4.10 LONE ADULT HOUSEHOLDS (UNDER PENSION AGE), 2006

	% of Households		% of Households	
	in sub group	in whole survey	in sub group	in whole survey
by Age of Household Reference Person				
17-24	4	4	3700	26720
25-39	32	23	29320	149630
40-59	55	36	50890	240210
60-74	10	24	8950	158180
by Employment Status of HRP				
Employed	55	51	51130	336280
Unemployed	20	8	18450	52090
Retired from work	5	29	4450	192240
Permanently sick/disabled	19	7	17190	44740
Other (including keeping house, student)	2	5	1640	33380
by Annual Household Income				
Under £7,000	20	12	18750	77080
£7,000-£9,999	19	18	17790	121300
£10,000-£14,999	22	23	20640	150290
£15,000-£19,999	14	13	13210	84740
£20,000-£29,999	15	14	13620	91520
£30,000 or more	10	20	8850	133800
by Religion				
Protestant	49	52	45080	341120
Catholic	39	38	36440	252160
Mixed Religion	1	4	750	28780
Other/None	11	6	10590	36670
by Tenure				
Owner Occupied	52	71	48300	464830
Private Rented	20	12	18340	79860
Housing Executive	25	14	23220	92700
Housing Association	3	3	3000	21340
by Construction Date				
Pre 1919	14	14	12990	95160
1919-1944	12	10	10750	66490
1945-1964	20	21	18630	135340
1965-1980	27	25	25130	163650
Post 1980	27	30	25360	198090
by Settlement Type				
BMA	42	40	39240	260100
District Town/Other Town	34	31	31150	205490
Small Rural Settlement	16	15	14620	99590
Isolated Rural	8	14	7850	93550
by Dwelling Type				
Bungalow	21	23	19190	149490
Terraced House	34	33	31250	214640
Semi-Detached House	18	20	16990	132810
Detached House	8	17	7240	114250
Flat/Apartment	20	7	18190	47540

TABLE 4.11 UNEMPLOYED OR PERMANENTLY SICK/DISABLED, 2006

	% of Households		% of Households	
	in sub group	in whole survey	in sub group	in whole survey
by Age of Household Reference Person				
17-24	6	4	5480	26720
25-39	25	23	24060	149630
40-59	53	36	51200	240210
60-74	14	24	13630	158180
75 plus	3	13	2460	83990
by Employment Status of HRP				
Not Working - seeking work	20	3	19960	19960
Not Working - not seeking work	33	5	32130	32130
Permanently sick/disabled	46	7	44740	44740
by Annual Household Income				
Under £7,000	29	12	28050	77080
£7,000-£9,999	33	18	31900	121300
£10,000-£14,999	31	23	30230	150290
£15,000-£19,999	5	13	4530	84740
£20,000-£29,999	2	14	1590	91520
£30,000 or more	1	20	530	133800
by Religion				
Protestant	43	52	41470	341120
Catholic	52	38	50050	252160
Mixed Religion	3	4	2750	28780
Other/None	3	6	2560	36670
by Tenure				
Owner Occupied	31	71	30500	464830
Private Rented	22	12	21570	79860
Housing Executive	42	14	40420	92700
Housing Association	4	3	4340	21340
by Construction Date				
Pre 1919	12	14	11430	95160
1919-1944	9	10	9020	66490
1945-1964	24	21	22890	135340
1965-1980	31	25	29750	163650
Post 1980	25	30	23740	198090
by Settlement Type				
BMA	39	40	38040	260100
District Town/Other Town	37	31	35370	205490
Small Rural Settlement	16	15	15130	99590
Isolated Rural	9	14	8290	93550
by Dwelling Type				
Bungalow	19	23	18620	149490
Terraced House	48	33	46940	214640
Semi-Detached House	15	20	14050	132810
Detached House	5	17	4690	114250
Flat/Apartment	13	7	12530	47540

4.5 Summary of Changes in Household Sub-Groups 2001-2006

All household sub-groups with the exception of lone adult show some inter tenure movement between 2001 and 2006. These and other changes are summarized below.

Households with children 2006

Between 2001 and 2006 the overall proportion of households with children shows a marginal decline. However, the most important change was the increase of households with children in the private rented sector and a corresponding decrease in owner occupied and Housing Executive accommodation. Other social and dwelling characteristics show little change 2001 to 2006.

Lone Parent Households 2006

The proportion of lone parent households has remained steady since 1996. The proportion of these households who fulfil their housing needs in the private rented sector grew rapidly between 2001 and 2006 from 13 per cent in 2001 to 37 per cent in 2006. There was a corresponding decrease in the proportion in the Housing Executive accommodation (from 58% to 33% in 2006). The proportion in owner occupation also shows a small decline.

Elderly Households (aged 75 or older) 2006

The proportion of households headed by someone aged 75 or older has remained steady since 1996. However, this group shows an increase in owner occupation between 2001 and 2006 (62% to 71%) with a corresponding decrease in Housing Executive accommodation (21% to 15%). This may well reflect the impact of supporting people which aims to extend the time older people can live independently in their own homes.

Lone adult households (under pension age) 2006

Overall, there has been little change in the profile of this group since 2001, with a little over one-half (52%) still living in the owner occupied sector.

Unemployed or Permanently Sick/Disabled 2006

Overall, the profile of this group remained similar in 2001 and 2006. There was some indication of changes within employment status. The proportion of those unemployed and not working not seeking work increased (25% to 33%; 2001-2006) while there was a decline in the proportion of those not working - seeking work (25% to 21%) and permanently sick/disabled (50% to 46%). This group also shows a much higher propensity for living in the private rented sector. In 2001 only 14 per cent rented privately, by 2006 this had risen to 22 per cent.

4.6 Summary and Conclusion

The household data from the 2006 HCS confirmed a number of important housing trends including:

- The greater propensity for smaller households. In line with other research the HCS shows that the proportions of smaller households such as two person older, two adults and lone adult have slightly increased since 1996, while the proportions of small and large family households have shown decreases.
- Overcrowding was not a major issue in Northern Ireland in 2006 with only three per cent of households living in circumstances which fall below the Bedroom Standard.
- The HCS shows that the proportion of younger people renting privately has risen due primarily to a combination of rapidly rising house prices and a reduction in social housing stock. Meanwhile the rates of owner occupation have reduced for some household groups, particularly for households headed by reference persons aged between 25 and 39.
- Not only has there been an increase in the overall proportion of stock in the private rented sector, but the HCS has also provided some evidence of the changing social characteristics of households living in this tenure. Findings have shown rising proportions of younger people (aged 17 to 39), lone parents, the unemployed and those looking

after the family home. Consequently, there has been an increase in the number and proportion of lower income households living within the private rented sector, indicating that this sector has to a certain degree taken over the role of housing many of those who 10 years ago would have found accommodation in the social sector.

- The proportion of youngest (17-24) and oldest (75 plus) age groups living in Housing Executive dwellings has declined from 42 per cent and 21 per cent respectively in 2001 to 18 per cent and 15 per cent respectively in 2006.
- In 2006 the HCS estimated that almost half (47%; 39% HCS 2001) of Housing Executive stock was occupied by single person households, the majority (58%) of whom said they had a long term illness that limited their daily activities.
- Overall, three-fifths (60%) of Housing Executive homes in 2006 were headed by a reference person aged between 40 and 74 (54% in 2001). The proportion of HRPs in unemployment had increased from 20 per cent to 27 per cent.
- Differences by religion have changed over time with similar proportions of Catholic and Protestant households in terraced and detached housing. Consistent with 2001 more Catholic than Protestant households lived in new (post 1980) dwellings (35% compared to 25%). The main difference relates to location with higher proportions of Protestant households in the BMA and higher proportions of Catholic households in rural areas.

TABLE 5.1 UNFITNESS - KEY FIGURES, 1996-2006

	1996		2001		2006	
Location						
All Urban	21,000	(48%)	13,600	(43%)	12,820	(53%)
All Rural	22,900	52%)	18,000	(57%)	11,340	(47%)
Tenure						
Owner Occupied	22,100	(50%)	12,000	(38%)	7,500	(31%)
Private Rented and Others	5,700	(13%)	4,300	(14%)	2,160	(9%)
Housing Executive	3,400	(8%)	900	(3%)	500	(2%)
Housing Association	300	(1%)	400	(1%)	90	0.4%)
Vacant	12,500	(29%)	14,000	(44%)	13,910	(58%)
Dwelling Age						
Pre 1919	24,900	(57%)	19,300	(62%)	15,030	(63%)
1919 - 1944	8,500	(19%)	5,000	(16%)	3,750	(16%)
1945 - 1964	6,600	(15%)	2,800	(9%)	2,450	(10%)
1965 - 1980	3,190	(7%)	2,300	(7%)	940	(4%)
Post 1980	900	(2%)	2,200	(7%)	1,990	(8%)
All Unfit Dwellings	44,000	(7.3%)	31,600	(4.9%)	24,160	(3.4%)

TABLE 5.2 THE STATE OF REPAIR - KEY FIGURES, 2006

	Dwellings in Disrepair 2006		Average Basic Mean Repair Cost 2006 (£)
Tenure			
Owner Occupied	223,340	(47.6%)	677
Private Rented and Others	51,590	(63.8%)	1,017
Housing Executive	56,390	(60.3%)	243
Housing Association	5,680	(26.4%)	88
Vacant	28,850	71.6%)	10,565
Dwelling Age			
Pre 1919	87,440	(76.8%)	5,058
1919 - 1944	48,670	(68.5%)	1,173
1945 - 1964	78,740	(55.7%)	429
1965 - 1980	84,230	(49.8%)	322
Post 1980	66,770	(31.9%)	363
Dwelling Type			
Bungalow	79,710	(49.8%)	1,440
Terraced House	136,900	(60.7%)	598
Semi-Detached House	71,980	(51.0%)	758
Detached House	55,000	(44.9%)	2,680
Flat/Apartment	22,260	(39.7%)	885
Location			
Belfast Metropolitan Area	147,560	(53.6%)	796
District/Other Town	106,050	(48.6%)	582
All Urban	253,610	(51.4%)	702
Small Rural Settlement	53,020	(49.6%)	705
Isolated Rural	59,220	(56.8%)	4,104
All Rural	112,240	(53.1%)	2,384
All Dwellings in Disrepair	365,850	(51.9%)	1,206

5. 1.0 Unfitness - Introduction

House Condition Surveys have assessed dwelling conditions against the Statutory Fitness Standard since 1974. Since 1991 they have provided a robust five-yearly assessment of the level of unfitness in Northern Ireland and have demonstrated the substantial progress made in improving housing conditions. The 2006 House Condition Survey again shows a continuing fall in the number of unfit dwellings in Northern Ireland. The relative importance of the Fitness Standard has declined with the introduction of new government measures such as The Housing Health and Safety Rating System, which replaced the Fitness Standard in England and Wales in April 2006 and the 'Decent Homes' standard. However, the assessment of the fitness of dwellings remains a very important component of the Survey in Northern Ireland.

5. 1.1 Profile of Unfitness

The 2006 House Condition Survey estimated that there were some 24,160 dwellings that were statutorily unfit in Northern Ireland. This represents a headline rate of 3.4 per cent (see Table 5.1). This compares with 25,600 unfit dwellings (3.8%) in the 2004 Interim House Condition Survey and 31,600 dwellings (4.9%) in the 2001 House Condition Survey. In England the rate of unfitness in 2006 was four per cent.

This continuing decline in unfitness can be attributed to a considerable extent to the ongoing economic growth in Northern Ireland and the greater political stability which have combined to promote confidence and investment in the housing market. These underlying factors have stimulated ongoing market renewal through a combination of new build and improvement to existing homes in the private sector, often with the help of improvement grants. In the social sector continuing maintenance and improvement together with the construction of new housing association dwellings have all played their part.

The Fitness Standard

The current Fitness Standard is set out in Schedule 5 of the Housing (Northern Ireland) Order 1992. This schedule states that a dwelling is unfit for human habitation if it fails to meet one or more of the following requirements:

- It is structurally stable.
- It is free from serious disrepair.
- It is free from dampness prejudicial to the health of the occupants (if any).
- It has adequate provision for heating, lighting and ventilation.
- It has an adequate supply of wholesome water.
- There are satisfactory facilities in the house for the preparation and cooking of food, including a sink with a satisfactory supply of hot and cold water.
- It has a suitably located water closet for the exclusive use of the occupants (if any).
- It has, for the exclusive use of the occupants (if any), a suitably located fixed bath or shower and wash-hand basin each of which is provided with a satisfactory supply of hot and cold water.
- It has an effective system for the draining of foul, waste and surface water.

In addition, flats may be classified as unfit if the building or part of the building outside of the flat fails to meet any of the following requirements and by reason of that failure is not suitable for occupation:

- The building or part is structurally stable.
- It is free from serious disrepair.
- It is free from dampness.
- It has adequate provision for ventilation.
- It has an effective system for the draining of foul, surface and waste water.

Unfitness - Dwelling Location

Urban/Rural (Table A5.1)

In broad terms the geographical pattern of unfitness has remained similar to that of 2001 with the relatively higher rates of unfitness continuing to be located in the more remote rural areas of Northern Ireland (See Map 5.1 (a) and (b)).

Analysis of Table 5.1 (and Tables A5.1 and A5.2) shows the following:

- In 2006 the Belfast Metropolitan Area (BMA) had a rate of unfitness of 3.3 per cent (9,000 dwellings). Most of these (6,700) were in Belfast itself which had an unfitness rate of 5.3 per cent while the surrounding district councils had average unfitness rates of 1.5 per cent.
- Northern Ireland's towns also have a very low rate of unfitness. In all 3,800 dwellings (1.7%) fail to meet the fitness standard.
- In rural areas, however, the rate of unfitness continued to be much higher. In 2006 a total of 11,300 (5.4%) rural dwellings were unfit compared with 12,800 (2.6%) in urban areas. This compares with 2001 figures of 18,000 (8.5%) for rural areas and 13,600 (3.1%) for urban areas indicating a marked improvement in urban and particularly rural areas over this five-year period.
- Most unfit dwellings are now located in urban areas (53% of all unfit dwellings) compared to rural areas (47%). However, the condition of dwellings in isolated rural areas has remained relatively poor. A total of 9,300 (8.9%) isolated rural dwellings failed to meet the Fitness Standard and although this has reduced since 2001 (14,000 dwellings 11%) it continues to be the primary location for unfit dwellings. Indeed nearly two-fifths (38%) of all unfit dwellings in Northern Ireland were in isolated rural locations.

District Council (Table A5.2)

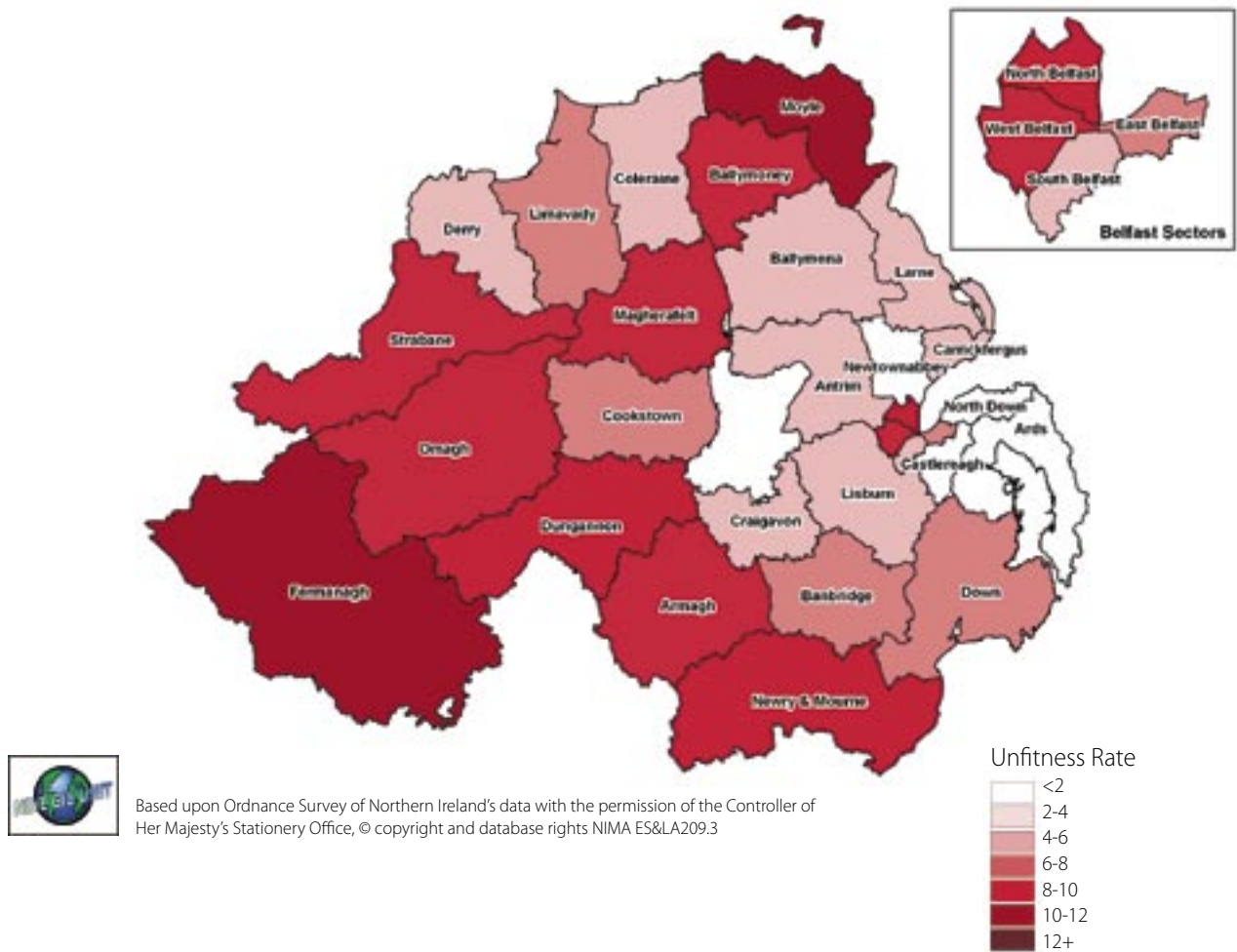
The unfitness rates in the 26 district council areas have traditionally been one of the most eagerly awaited figures from successive house condition surveys. It is important to stress, however, that

not too much weight should be attached to small percentage differences (see Appendix D). Any such differences or changes should rather be regarded as indicative.

As in the case of the urban/rural analysis, the general pattern of unfitness is the same as in 2001 (See Map 5.1 (a) and (b)) indicating a positive association between unfitness and peripherality.

- Belfast City, with an unfitness rate of 5.3 per cent, provided a core for surrounding arcs of unfitness.
- The 10 district councils immediately adjacent to Belfast City, stretching from Ballymena and Larne in the North to Craigavon, Lisburn and Ards in the South, maintained unfitness rates of less than four per cent. A majority of these councils showed a slight fall in unfitness rates but the unfitness rate in Lisburn fell by 3.3 percentage points, reflecting to a certain extent the rapid increase in the number of newly constructed dwellings in Lisburn. The relatively short distance to Belfast, combined with housing affordability and land availability issues in some parts of Belfast, continues to form the background to the general improvement in housing conditions in the majority of these areas.
- The second arc comprised nine district councils with unfitness rates between 2.7 and 5.5 per cent. In these areas, where there is a combination of District Towns and large rural hinterlands, the unfitness rate has fallen in all council areas. In Strabane, in particular, the rate fell by 3.5 percentage points between 2001 and 2006. The continuing combination of new construction, demolitions and improvements, often with the help of grant aid, has led to these improvements in housing conditions.
- Derry and Coleraine have also experienced a slight reduction in unfitness rates in the period between the 2001 and 2006 surveys, achieving unfitness rates of 2.6 per cent and one per cent respectively. This improvement again reflects the investment of public and private resources in these urban areas and their immediate hinterland.

MAPS 5.1 (A) UNFITNESS RATE BY DISTRICT COUNCIL AREA, 2001



MAPS 5.1 (B) UNFITNESS RATE BY DISTRICT COUNCIL AREA, 2006

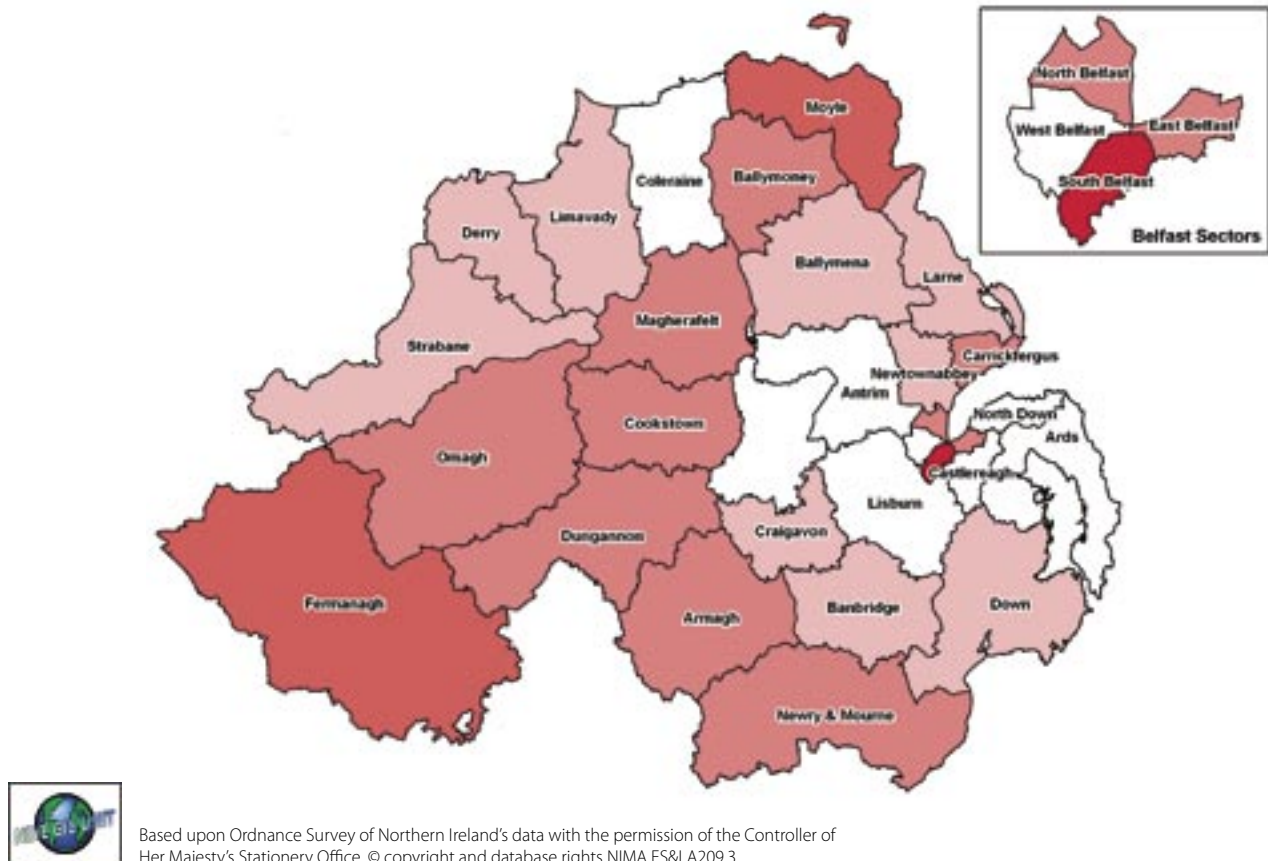


FIGURE 5.1(A) DWELLING TENURE AND UNFITNESS RATES, 2001

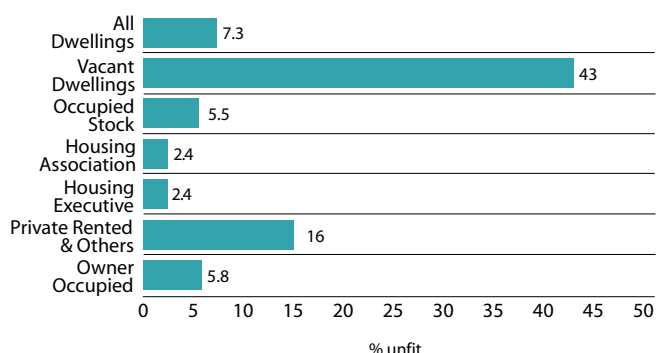
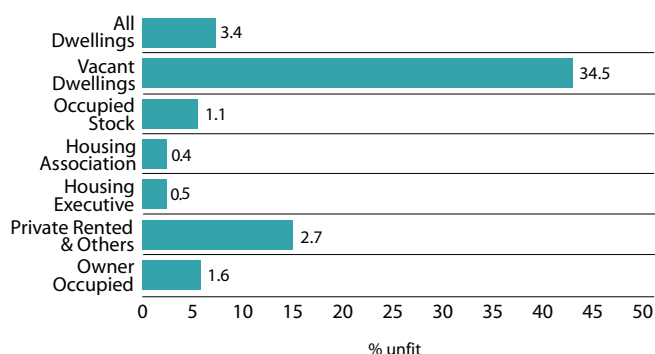


FIGURE 5.1(B) DWELLING TENURE AND UNFITNESS RATES, 2006



- Finally the outer peripheral arc consisting of Moyle, Fermanagh, Dungannon and Newry and Mourne had unfit rates ranging from 4.6 per cent to 7.4 per cent. The unfit rate in each of these council areas has fallen considerably from 2001. Fermanagh still has the highest level of unfit in Northern Ireland. Approximately 1700 dwellings (7.4%) failed to meet the Fitness Standard. This does, however, represent a significant reduction from a rate of nearly 13 per cent in 2001, reflecting not only investment in new (including holiday) homes, but also investment in the existing stock with the help of improvement and replacement grants. Similarly, unfit rates in both Moyle and Newry and Mourne have fallen considerably from 2001 levels by 5.5 percentage points in Moyle and 4.2 percentage points in Newry and Mourne.

Dungannon, with an unfit rate of 4.6 per cent, and Newry and Mourne now have similar unfit rates to the Councils in the second arc noted above.

Generally it must be noted that the differences in the rates of unfit between district councils were markedly less in 2006 than in 2001. The unfit rates in councils in the 'outer arc', while still generally higher, are now much closer to those found in the middle arc and in Belfast. In 2001 unfit rates ranged from around 1.5 per cent in Ards, Castlereagh and Newtownabbey, through nearly six per cent in Belfast, to 12 per cent and 13 per cent in Moyle and Fermanagh respectively. In 2006 the range of unfit rates is from one per cent or less in Lisburn, North Down and Coleraine, through just over five per cent in Belfast, to 6.5 per cent and 7.4 per cent in Moyle and Fermanagh respectively.

Unfit - Tenure (Table A5.3)

As in 2001 there was a clear association between unfit and tenure (see Figures 5.1 a and b)

- Nearly two-thirds (13,900; 58%) of all unfit properties were vacant and conversely 35 per cent of all vacant properties failed the Fitness Standard. The high level of association between vacancy and unfit is illustrated by the fact that in 2006 the rate of unfit for the occupied housing stock was only 1.5 per cent compared to 2.9 per cent in 2001.

An illustration of the complexity of the relationship between vacancy and unfit is provided by comparing the previous figures with their 2001 equivalents:

- In 2006, 58 per cent of all unfit properties were vacant compared with only 44 per cent in 2001, showing the increasing concentration of unfit properties in this sector of the market.
- However, only 35 per cent of all vacant properties were unfit compared to 44 per cent in 2001, reflecting to a considerable degree the growth in the number of new buy-to-let properties that are vacant.

- Within the occupied stock the highest rate of unfitness was found in the private rented sector with 2.6 per cent (2,100 dwellings) being unfit. This is a considerable reduction from 2001, with rate of unfitness falling by approximately two-thirds (from 8.7% in 2001) and the number of unfit properties dropping by 50 per cent (from 4,300 in 2001). The considerable improvement in the rate of unfitness reflects to a large extent the rapid growth in the new buy-to-let sector, but also ongoing regeneration work in areas with a higher percentage of older privately rented properties.
- Some 7,500 unfit dwellings were owner occupied in 2006 representing an unfitness rate of 1.6 per cent and accounting for nearly one-third (31%) of all unfit properties. This represents a reduction, since 2001, of more than one percentage point in the unfitness rate and more than one-third in the number of unfit houses that were owner occupied.
- Levels of unfitness in the social sector remain very low; in all approximately 600 occupied properties (around 0.5 %) were unfit, the majority of these being Housing Executive properties. This again indicates a slight reduction in unfitness since 2001 when 1,300 occupied properties in the social sector were unfit.

Unfitness - Dwelling Age (Table A5.4)

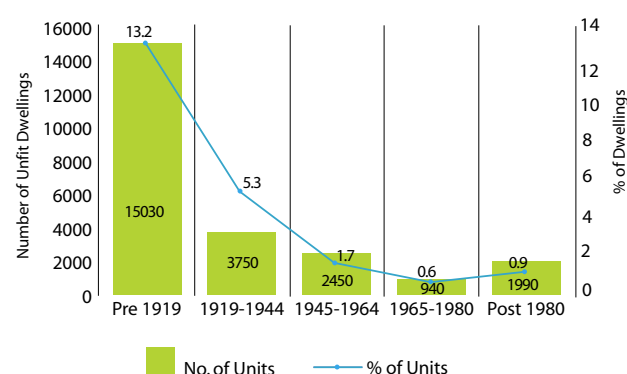
As with tenure there was a clear relationship between unfitness and dwelling age; as the age of dwellings increased so did the likelihood of unfitness (see Figure 5.2).

- Almost two-thirds (15,000; 62%) of all unfit dwellings were built before 1919. The rate of unfitness among pre -1919 dwellings was over 13 per cent and was much higher than any other age group. This pattern has not changed since 2001 when some 19,300 unfit dwellings, again representing 62 per cent of all unfit dwellings, had been built before 1919.
- In 2006 the proportion of unfit properties built between 1919 and 1944 was the same as that found in 2001. This age group accounted for some 16 per cent of all unfit properties with an

unfitness rate of 5.3 per cent which was a slight decrease from the rate in 2001 (7%).

- Dwellings built since 1945 accounted for the remaining 22 per cent of unfit dwellings.¹³

FIGURE 5.2 DWELLING AGE AND UNFITNESS, 2006



Unfitness - Dwelling Type (Table A5.5)

Analysis by dwelling type reveals a fairly even spread of unfitness between all dwelling types. Unfitness by dwelling type is closely related to unfitness by age and location.

- Single storey houses represented a little over 25 per cent of all unfit housing (6,200 houses) with the unfitness rate for such properties being a little under four per cent. Many of these properties are (often vacant) rural dwellings in more isolated areas.
- A little over 25 per cent of all unfit housing (6,100 houses) were detached houses and such properties had an unfitness rate of five per cent. Once again there is a direct relationship with age and location, with the majority of these houses being older properties in rural areas.
- Terraced houses represented 22 per cent of unfit houses with an unfitness rate of 2.4 per cent. Unfitness in this dwelling type reflected the inner city location of these mostly Victorian properties.
- Semi-detached houses made up 13 per cent of all unfit dwellings (3,200 properties). The rate of unfitness for such houses was the lowest of all tenures (a little over 2%).

¹³ The relatively high number of unfit dwellings built since 1990 is essentially due to modern dwellings still being in the final stages of construction, or in the process of major renovation, and therefore technically unfit at the time of the Survey.

- Thirteen per cent (3,200) of unfit dwellings were flats/apartments. Flats/apartments had the highest unfitness rate of any tenure (nearly 6%).

Unfitness - Household Characteristics

The rate of unfitness for the occupied stock was 1.5 per cent (compared to 2.8% in 2001). Analysis by household characteristics, however, shows a number of noteworthy deviations from this overall figure.

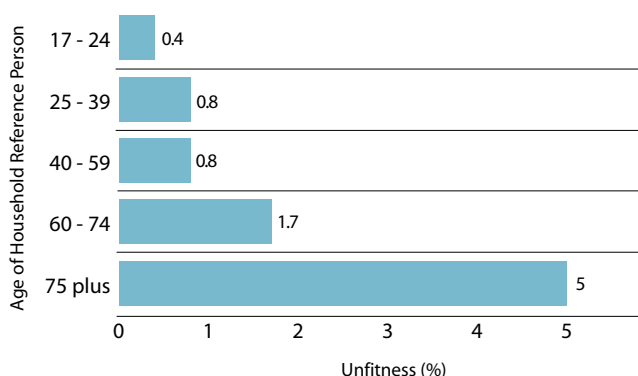
Age of Household Reference Person (Table A5.6)

There was a close relationship between unfitness and the age of the household reference person (HRP) (see Figure 5.3). A much higher than average proportion of HRPs aged 75 years or more lived in unfit dwellings (5%; 6% in 2001). The percentage was also higher for HRPs aged 60-74 (1.7%; 3.5% in 2001). Indeed, in 2006 HRPs from these two age groups resided in two-thirds (68%) of all occupied unfit dwellings (compared to 57% in 2001). This indicates a further strengthening of the correlation between dwelling unfitness and people over 60 years of age.

The increasing number of unfit dwellings occupied by people over the age 60 years is indicative of several possible factors.

- The reluctance of older people to commit to the cost and disturbance associated with improvements and major repairs;
- The reluctance to seek grant aid towards the cost of improvements and repairs possibly due to anxiety concerning the contribution towards the total cost;
- The likelihood that older people are less likely to move to other accommodation and are therefore sometimes prepared to remain in unfit property.

FIGURE 5.3 UNFITNESS AND AGE OF HOUSEHOLD REFERENCE PERSON, 2006



Household Type (Table A5.7)

The rate of unfitness was particularly high for lone older households (4.1%) reflecting to a large extent the influence of age. This compares with 6.2 per cent in 2001. In comparison, the rate for lone parent households was the second lowest (0.6%) reflecting the fact that a relatively high proportion of this group live in social housing.

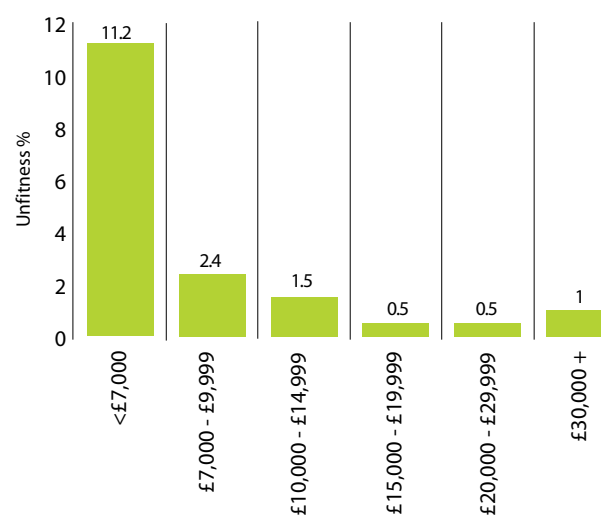
Employment Status (Table A5.8)

The rate of unfitness was higher in dwellings occupied by HRPs who were retired, (2.7%), looking after the family/home (2.6%), unemployed (2.1%) or permanently sick or disabled (1.8%). Indeed in more than one-half of all occupied unfit dwellings the HRP was retired.

Household income (Table A5.9)

There was a clear relationship between household income and unfitness (see Figure 5.4). In the case of households with an income of less than £7,000 per annum 4.4 per cent lived in unfit dwellings. The comparable figure for households with an income greater than this was just over one per cent.

FIGURE 5.4 UNFITNESS AND ANNUAL INCOME, 2006



Household Religion (Table A5.10)

There was a statistically insignificant difference in the levels of unfitness of dwellings occupied by Protestant (1.8%) and Catholic (1.4%) households.

Mixed religion households were less likely to live in unfit dwellings (0.6%). Protestant families lived in three-fifths of the occupied unfit houses, reflecting to a considerable degree the older age profile of Protestant households in Northern Ireland.

5.1.2 The Scale of Unfitness

The Assessment

The 2006 House Condition Survey estimated that a total of some 24,200 dwellings were unfit. In order to be classified as unfit a dwelling must fail on one or more of the 11 individual criteria set out in the nine point Fitness Standard. Dwellings in need of some repair work may or may not be classified as unfit. In each case the surveyor, using his or her professional expertise, assessed the nature of any faults together with their severity and extent or scale. The risks associated with these faults were also assessed to determine whether or not a particular dwelling should be classified as unfit for human habitation. An important element of the House Condition Survey training programme was to maximise the consistency of surveyors' judgements.

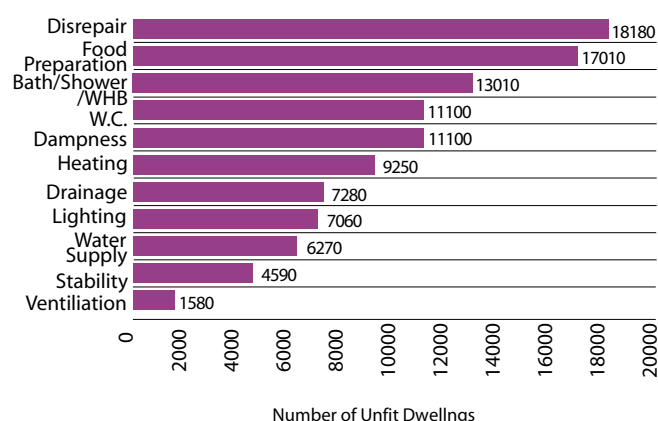
The Causes of Unfitness

Figure 5.5 provides a graphic illustration of the relative importance of each of the 11 criteria in causing unfitness in the dwelling stock as a whole.

- The most common cause of unfitness was serious disrepair (18,200 dwellings; 75% of all unfits).
- Unsatisfactory facilities for the preparation and cooking of food were the second most common reason for unfitness (17,000 dwellings; 70% of all unfits).
- The third most common reason was the lack of a suitably located bath or shower and wash hand basin that was recorded as a cause of unfitness in a total of 13,000 dwellings (54% of all unfits).
- The fourth and fifth most common problems, respectively, were the absence of a suitably located water closet and dampness (11,100 dwellings; 46% of all unfits in both cases).

As figure 5.5 shows, there were far fewer unfit dwellings that failed the Fitness Standard on the other six criteria. This overall pattern of unfitness closely reflects the picture which pertained in 2001. The top five causes of unfitness remained the same, only their ranking was different. In 2001 dampness was the third most common cause, followed by absence of a suitably located bath or shower and wash hand basin. In 2001 the fifth most common cause of unfitness was absence of a suitably located water closet.

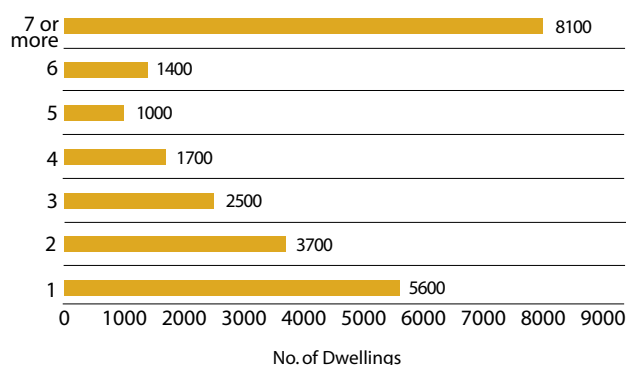
FIGURE 5.5 THE CAUSES OF UNFITNESS, 2006



In order to be classified as unfit a dwelling must fail on one or more of the 11 individual criteria set out in the Fitness Standard. In all, 5,600 dwellings (23% of all unfits) failed the standard on a single item. The most common causes of single item unfitness were disrepair (1,900; 8% of all unfits), unsatisfactory facilities for the preparation and cooking of food (1,800; 7% of all unfits) and dampness (almost 900; 4%).

The survey showed that 3,700 (15% of all unfits) dwellings failed on two criteria, 2,500 (10% of all unfits) on three criteria, 1,700 (7% of all unfits) on four criteria and smaller proportions on five and six criteria. However, more than 8,000 (34%) unfit properties failed on seven or more criteria (See Figure 5.6).

FIGURE 5.6 UNFIT DWELLINGS - NUMBER OF UNFIT ITEMS, 2006



5.1.3 The Nine Point Standard

A more detailed analysis of unfit dwellings on the basis of the nine point standard set out by the Housing Order (Northern Ireland) 1992 reveals the following:

“It is structurally stable...”

The 2006 House Condition Survey showed that some 4,600 dwellings were unfit at least partly because they were not structurally stable. Analysis of these dwellings shows the following:

- Surveyors could record one or more of 20 structural defects. In these unfit properties the most common types of defect were wet or dry rot, unstable floors stairs or ceilings, lintel failure and sagging roofs (see Table 5.3). Almost 600 of these dwellings had only one structural defect, nearly 700 had two structural defects and the remainder were recorded as having three or more such defects.

TABLE 5.3 STRUCTURAL DEFECTS IN UNFIT DWELLINGS, 2006

Dry Rot/Wet Rot	3,300
Unstable Floors, Stairs and Ceilings	2,000
Lintel Failure	2,000
Roof Sagging	1,800
Roof Spreading	1,400
Wall Bulging	1,200
Total Unfits with Structural Defects	4,600

Table A5.11 in the statistical annexe shows that:

- More than four-fifths (3900; 86%) of these dwellings were vacant. More than 500 (12%) were in the owner occupied sector with the remaining two per cent being privately rented.
- More than one-half (54%) were in isolated rural areas and nearly two-fifths (38%) were in the Belfast Metropolitan Area.
- One-third were detached houses and a further 26 per cent were single storey dwellings.
- The vast majority of unfit structurally unstable buildings were built prior to 1919.

“It is free from serious disrepair...”

A little over 18,000 dwellings (75% of all unfits) failed the Fitness Standard on the basis of serious disrepair. An indication of the level of seriousness of disrepair in these dwellings is given by Table 5.4 that compares their average repair costs with those of all dwellings and unfit dwellings in general.

TABLE 5.4 REPAIR COSTS AND UNFITNESS, 2006

% Dwellings	Unfit on Disrepair (£)	All Unfits (£)	All Dwellings (£)
5	4,679	1,391	0
10	6,295	3,490	0
25	11,948	7,373	0
50	19,995	14,757	0
75	40,035	33,132	628
90	67,833	56,719	2,464
95	83,468	76,104	5,729
Av. Basic Repair Cost	29,472	23,936	1,476
Av. Urgent Repair Cost	27,649	22,284	1,206

One-quarter of all dwellings required basic repair costs of at least £628. However, for all unfit dwellings this rose to £33,132 and for those dwellings unfit on disrepair the figure rose to £40,035. These figures reinforce the view that disrepair is concentrated in

the unfit stock. A similar picture is seen when the repair costs for the five per cent of dwellings most in need of repair for each of the three categories are compared: the average basic repair cost for the worst five per cent is £5,729 but this increases by nearly 15 fold to £83,468 for dwellings unfit on the basis of disrepair.

Further analysis of the 18,180 dwellings that failed the Fitness Standard on grounds of disrepair indicates the following (See Table A5.12):

- More than two-thirds (68%) are vacant properties and one-quarter were in the owner occupied sector.
- More than two-fifths (41%) are located in isolated rural areas, 39 per cent are in the Belfast Metropolitan Area and a further 12 per cent are in district and other towns.
- Slightly less than one-third (31%) were detached houses and nearly one-quarter (23%) were single storey dwellings.
- Seventy per cent were built prior to 1919 and a further 12 per cent were built between 1919 and 1944.

Typically unfitness on the basis of disrepair was found in pre-1919 rural dwellings that were usually vacant or in the owner occupied sector.

"It is free from dampness prejudicial to the health ..."

In 2006 there were approximately 11,100 dwellings that were unfit on the grounds of dampness. Surveyors classified dampness as rising damp (10,600; 95%), penetrating damp (6,600; 59%) and serious condensation and/or mould growth (3,500; 32%). Figure 5.7 (a) shows how these three forms of damp occurred both singly and in combination with one another; and that in these unfit dwellings there was a strong tendency for at least two of these forms to occur simultaneously; in all nearly 8,000 (71%) had at least two forms, the most common combination being rising damp and penetrating damp.

Figure 5.7 (b) confirms how a combination of the three forms of dampness is much more prevalent in unfit dwellings. Taking the stock as a whole, some

47,500 dwellings have recorded dampness but in this case more than two-thirds of these (70%) have only one of the three forms. In all, the vast majority where a dwelling simultaneously had rising damp, penetrating damp and condensation/mould, it was found to be unfit.

FIGURE 5.7 (A) NUMBER OF DWELLINGS UNFIT ON GROUNDS OF DAMPNESS, 2006

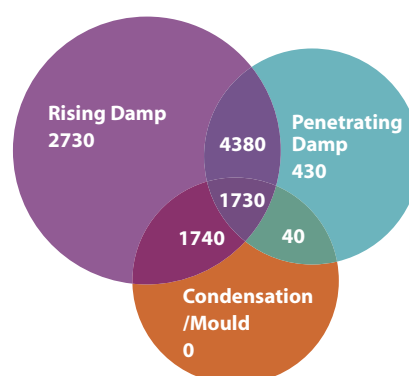
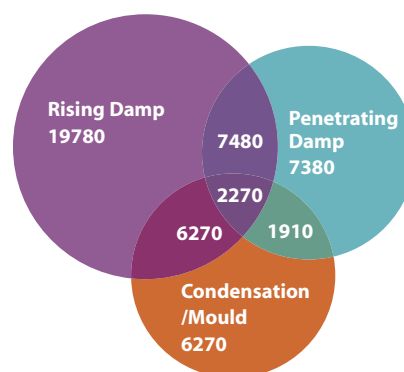


FIGURE 5.7 (B) TOTAL NUMBER OF DWELLINGS WITH DAMPNESS, 2006



Further analysis of dwellings classified unfit on the grounds of dampness (See Table A5.13) shows the following:

- Over 7,800(70%) were vacant and 2,400 of the remainder (22%) were owner occupied.
- Over 6,600 (60%) were in isolated rural areas and a further 11 per cent in smaller settlements.
- More than two-thirds were either detached houses (32%) or single storey dwellings (35%).

TABLE 5.5 HEATING SYSTEMS AND UNFITNESS, 2006

	Unfit Dwellings	(%)	All Dwellings	(%)
Central Heating Gas	50	0.5	83990	11.9
Central Heating Fuel Oil	90	1.0	495560	70.3
Central Heating Solid Fuel	1360	14.7	32900	4.7
Central Heating Electric	70	0.8	36910	5.2
Central Heating Dual	10	0.1	38540	5.5
Central Heating Other	-	-	4320	0.6
Non Central Heating Solid Fuel	2900	31.4	6810	1.0
Non Central Heating Other	4770	51.5	5970	0.8
Total	9250	100.0	705000	100.0

- The vast majority (93%) were built before 1919.

“It has adequate provision for heating, lighting and ventilation...”

A total of almost 9,300 dwellings were deemed unfit on the basis of inadequate heating, Table A5.16 shows that:

- Almost nine-tenths (88%) were vacant properties.
- Nearly one-half (46%) were in isolated rural areas.
- The types of dwellings failing the fitness standard due to inadequate heating was fairly evenly spread with detached houses (27%), flats or apartments (26%) and single storey houses (24%) making up nearly four-fifths of the dwellings failing under this heading.
- Three-quarters (74%) were built before 1919.

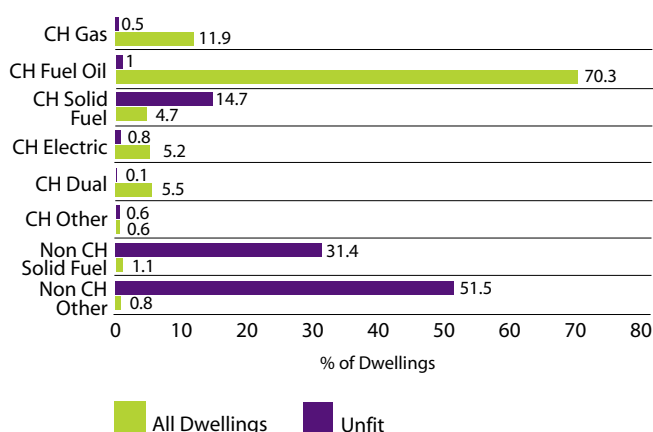
Additional analysis reveals the following:

Heating

Of the dwellings classified as unfit on the grounds of heating a little over one-half (4,700; 51%) had no heating provision at all, nearly one-third were heated by open fires (2,900; 31%) and a further 1,000 properties (11%) were heated by solid fuel stove/space heaters. Table 5.5 and Figure 5.8 illustrate the contrast with the dwelling stock as a whole where only 6,800 (1%) of the stock had either open fires or solid fuel stove/space heaters as its primary heat source.

Inadequate heating provision was the main cause of unfit on the grounds of heating in the vast majority of dwellings (9,100 dwellings (98%). Ill-fitting doors or windows contributed to unfit on the grounds of inadequate heating in 3,100 (33%) dwellings.

FIGURE 5.8 HEATING SYSTEMS AND UNFITNESS, 2006

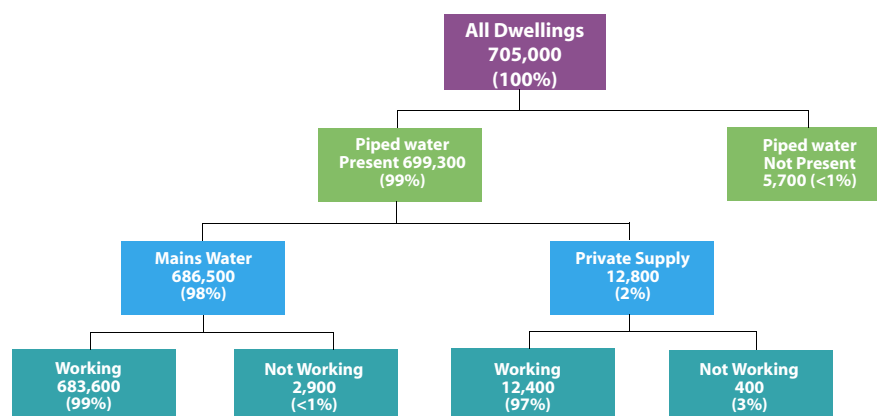


Lighting

Almost 7,100 dwellings were deemed unfit on the basis of inadequate lighting. Table A5.15 shows that:

- The vast majority (90%) were vacant properties.
- More than one-third (36%) were in isolated rural areas.
- More than one-third (35%) were flats or apartments, nearly one-fifth (18%) were single

FIGURE 5.9 ON THE PROVISION OF A PIPED WATER SUPPLY 2006



storey houses and one-quarter were detached houses (25%).

- Three-quarters (75%) were built before 1919.

Additional analysis reveals the following:

The majority of the 7,100 dwellings classified as unfit on the basis of lighting had inadequate artificial light (5,300; 74%) half of which had no mains supply of electricity. Other contributory factors to a dwelling being classified as unfit on the grounds of lighting included windows which were too small (800; 11%) and being overshadowed (200; 2%).

Ventilation

Fewer dwellings were deemed unfit on the basis of ventilation than any other grounds for unfitness. The numbers were too small to allow for any form of robust analysis but where this was a ground for unfitness the most common reasons were either sealed window openings or window openings being too small.

"It has an adequate supply of wholesome water...."

In 2006 nearly 6,300 dwellings failed the Fitness Standard on the basis of lacking an adequate piped supply of wholesome water.

Figure 5.9 shows that the vast majority of dwellings (99%) in Northern Ireland had a piped cold water drinking supply leaving just 5,700 (<1%) dwellings without this basic amenity; a figure that is very similar to that recorded in 2001. Further analysis

shows that of those dwellings with a piped cold water drinking supply:

- The overwhelming majority (98%) had had a mains water supply and in nearly all houses (99%) this was working. However, some 2,900 dwellings had a mains supply that was not working.
- Some 12,800 dwellings had a private supply and in an estimated 400 dwellings this was not working.

Appendix Table A5.17 shows that the dwellings found unfit on the grounds of water supply were typically vacant (87%), in isolated rural areas (56%) and built before 1919 (56%). Three-fifths of properties lacking an adequate water supply were either detached (32%) or single storey houses (30%).

"There are satisfactory facilities in the house for the preparation and cooking of food..."

Following disrepair, unsatisfactory facilities for the preparation and cooking of food was the second common reason for a dwelling failing to meet the Fitness Standard. An estimated 17,000 dwellings failed on this point. This is one of the most complex aspects of the Fitness Standard and when judging a dwelling a surveyor must take into account:

- The presence of a fixed kitchen sink with a drainer and a piped hot and cold water supply, worktop

TABLE 5.6 PRESENCE OF KITCHEN AMENITIES IN UNFIT DWELLINGS, 2006

	Not Present		Present (Not Working)	
Cold Water Drinking Supply	4,600	33%	2,500	15%
Hot Water	8,200	48%	2,200	13%
Sink	6,400	38%	1,600	10%
Fixed Waste	6,700	40%	900	5%
Cooking Provision	7,000	41%	1,800	11%
Cupboards	7,100	42%	2,300	14%
Work Top	8,200	48%	1,600	9%
Extractor Fan	15,800	93%	400	2%
Total Unfits	17,000	100%	17,000	100%

or worktops, cooker point and the number and location of electrical power points;

- The suitability of the sink and worktops for cleaning;
- The adequacy of the hot water supply;
- The size of the sink, worktops and cooker space;
- The dimensions and layout of the kitchen or kitchen area.

Kitchen Amenities

Surveyors were asked to note which of eight specified kitchen amenities were present in the kitchen, and also whether refrigerators, washing machines and tumble driers were available in the dwelling.

Table 5.6 sets out the findings for the 17,000 dwellings found unfit on the basis of unsatisfactory facilities house for the preparation and cooking of food. It shows that almost one-half lacked a hot water supply (8300; 48%) and nearly one-half lacked worktops. The vast majority of these unfit properties had no extractor fan (16,000; 93%).

In addition, in many cases where the kitchen amenity was present it was not working. For example, in the case of hot water, although the amenity was present in almost nearly 8,800 of these unfit dwellings, it was not working in 2,200 (25%) of these.

TABLE 5.7 DWELLINGS LACKING KITCHEN AMENITIES, 2006

	Unfit Dwellings		All Dwellings	
0	700	4%	503,500	71%
1	5,100	30%	189,000	27%
2	2,600	15%	3,600	<1%
3	1,200	7%	1,400	<1%
4+	7,400	43%	7,500	1%
Total	17,000	100%	705,000	100%

Table 5.7 shows that the number of kitchen amenities lacking in a dwelling is a good indicator of unfitness on the grounds of preparation and cooking of food. Where a dwelling is lacking two or more of these amenities it is unfit in two-thirds of cases (66%).

Safety and Hygiene

Surveyors were asked to assess safety and hygiene in kitchens on the basis of space, layout and cleanability. The guidance notes to surveyors drew their attention to the following:

- The dimensions of the kitchen should be sufficient for the safe provision of the necessary facilities.
- The safe location of the cooker space, particularly in relation to the doorways and whether there

was sufficient floor space for the retrieval of items from the oven and for safe circulation within the kitchen generally.

- The nature of the work surfaces and adjacent walls and ceilings being sufficiently smooth and non-porous to allow for effective cleaning.

Analysis of the 17,010 dwellings classified as unfit on the basis of unsatisfactory facilities for the preparation and cooking of food (See Table A5.18) revealed that:

- More than one-fifth (3,500; 21%) were seriously defective in relation to space.
- Nearly one-half (8,000; 47%) were seriously defective in relation to layout.
- Nearly two-thirds (10,400; 61%) were seriously defective in relation to cleanability.

The 2006 survey showed that kitchen size was an important indicator of unfitness. (See Table 5.8)

The average size of all kitchens in the dwelling stock was 13 square metres. For unfit dwellings, however it was only 11 square metres.

Seventeen per cent of kitchens in dwellings found to be unfit on the grounds of the preparation and cooking of food had kitchens of five square metres or less compared to only three per cent of all dwellings. Forty one per cent of these unfit dwellings had kitchens of between 5 and 10 square metres compared to 32 per cent of the stock as a whole. Conversely, unfit dwellings were less likely to have kitchens of at least 10 square metres than the dwelling stock as a whole.

Further analysis of dwellings unfit on the grounds of the preparation and cooking of food (See Table A5.18) shows the following:

- More than two-thirds (71%) were vacant and a further one-fifth (19%) were owner occupied.
- Two-fifths (40%) were in isolated rural areas although a further 36 per cent were located in the Belfast Urban Area.
- One-quarter were single storey dwellings and more than one-fifth each were detached houses (22%) or terraced housing (21%).
- Nearly two-thirds (63%) were built before 1919 and a further 15 per cent between 1919 and 1944.

Typically again these dwellings were vacant or owner occupied and located in isolated rural areas but in the case of the preparation and cooking of food, older terraced dwellings in the BUA were a much more important component than with other elements of unfitness.

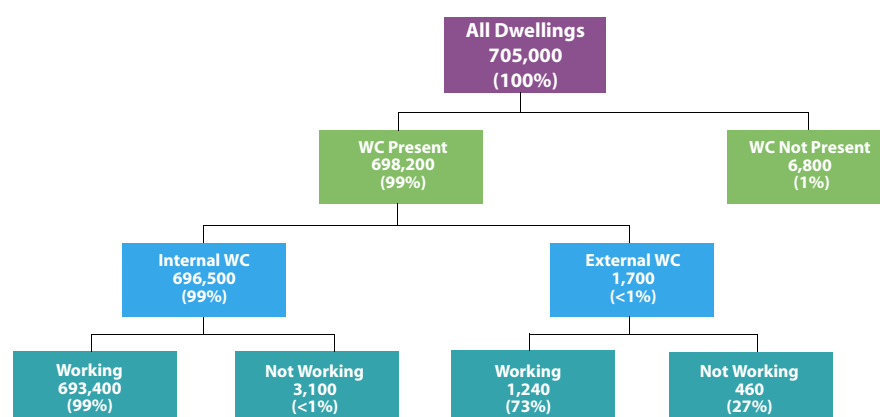
"It has a suitably located water-closet"

A suitably located water-closet for the exclusive use of the occupants of the dwelling has traditionally been regarded as a key indicator of housing standards. Normally the WC has to be located inside the habitable part of the dwelling house to meet these criteria, but if it is outside this, and can be reached under cover without entering the outside air, it is considered to be an internal WC. In addition, and with the exception of single bedroom dwellings, there must be one WC present that is not entered from a bedroom.

TABLE 5.8 KITCHEN SIZE AND FITNESS, 2006

	Unfit Dwellings		All Dwellings	
0-5.00m ²	2,900	17%	18,600	3%
5.01-10.00m ²	6,900	41%	225,000	32%
10.01-15.00m ²	2,600	15%	240,800	34%
15.01-20.00m ²	2,100	13%	147,300	21%
Over 20m ²	1,900	11%	69,500	10%
Missing Data	600	4%	3,800	1%
Total	17,000	100%	705,000	100%

FIGURE 5.10 ON THE PROVISION OF A WATER CLOSET 2006



The 2006 House Condition Survey estimated that 6,800 (1%) dwellings had no WC provision at all, a figure broadly similar to 2001 (5,700; 1%). An additional 1,700 dwellings had only an external WC (see preceding paragraph), also a decline in numbers from 2001. Figure 5.10 shows that in all 693,400 (98% of the total stock) had a working internal and correctly located WC, a similar figure to 2001.

Safety and Hygiene

Surveyors were asked to assess safety and hygiene in relation to water-closets on the basis of space, layout, cleanability and location. The attention of surveyors had been drawn in particular to the fact that hand washing is a crucial factor in preventing the spread of infection and that the two most important factors in the location of a water-closet are the necessity of hand washing and the potential risk of overflow. Where a WC was classified as seriously defective on one or more of space, layout, cleanability or location it must be classified as being unfit.

Analysis of the 11,100 dwellings classified as unfit on the basis of the WC (See Table A5.20) revealed that:

- More than one-quarter (3,000; 27%) failed on the basis of location, space, layout and cleanability.
- Of the remaining 8,100 dwellings (73%) only a small proportion were seriously defective in relation to space (14%) and layout (18%) but

much larger proportions on location (39%) or cleanability (42%).

Taking all dwellings that failed the fitness standard under this heading as a whole:

- One-fifth (1,100; 10%) were seriously defective in relation to space.
- Nearly 1,500 (13%) were seriously defective in relation to layout.
- Nearly one-third (3,400; 31%) were seriously defective in relation to cleanability.
- More than one-quarter (3,200; 29%) were seriously defective in relation to location.

Further analysis of the dwellings found to be unfit under this heading show (See Table A5.21):

- Three-quarters (75%) were vacant and a further one-fifth (19%) were owner occupied.
- Nearly one-half (48%) were in isolated rural areas although a further 35 per cent were in the Belfast Metropolitan Area.
- Nearly one-third (30%) were single storey dwellings, one-quarter were detached houses (24%) and one-fifth were terraced houses (19%).
- Two-thirds (66%) were built before 1919.

Typically these dwellings, therefore, were vacant, located in isolated rural areas and built before 1919.

“It has a suitably located fixed bath or shower and wash-hand basin...”

In 2006 an estimated 13,000 dwellings did not have a suitably located fixed bath or shower and wash-hand basin each of which was provided with a satisfactory supply of hot and cold water. Figures 5.11 and 5.12 provide more details in relation to baths/showers and wash-hand basin.

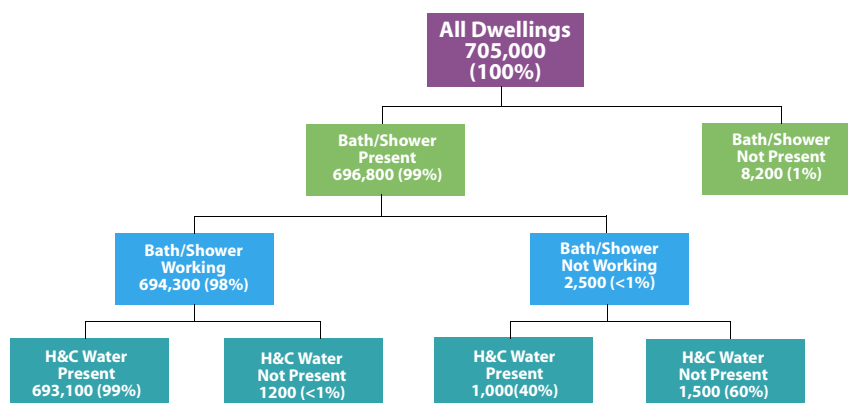
Some 8,200 (1%) dwellings did not have a bath/shower at all compared to 8,700 (1%) in 2001. In the vast majority of dwellings where a bath/shower was present they were also working and there was hot and cold water. In all 693,000 dwellings (98% of the total stock) had a bath/shower with a functioning hot and cold water supply (an increase from 634,600 (98%) in 2001).

Approximately 8,500 (1%) dwellings did not have a wash-hand basin at all, compared to 8,100 (1%) in 2001. Where a wash-hand basin was present, the vast majority were working and had adequate hot and cold water (693,000; 99% compared to 634,700 (98%) in 2001).

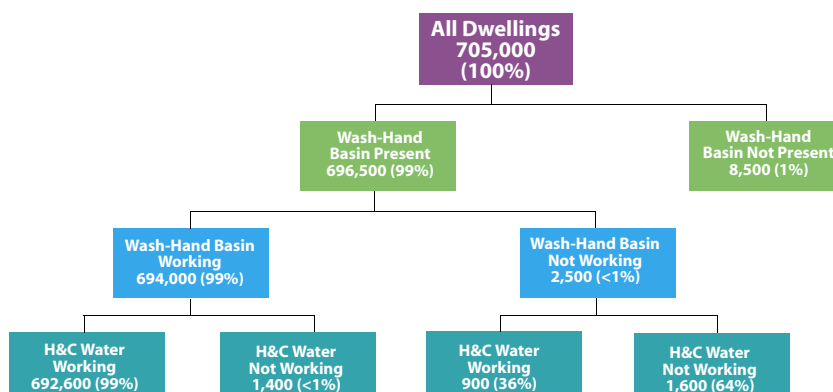
Safety and Hygiene

In determining the suitability of bathroom amenities under the Fitness Standard surveyors were asked to rate them in terms of safety and hygiene on the basis of space, layout, cleanability and location. Normally these amenities have to be located inside the habitable part of the dwelling house to meet these criteria. As with the WC, if it is outside, but can be reached under cover without entering the outside air, the facilities can be considered to be

5.11 THE PROVISION OF BATHS/SHOWERS, 2006



5.12 THE PROVISION OF WASH-HAND BASINS, 2006



internal. In addition, and with the exception of single bedroom dwellings, at least one of each of these facilities must be so located that they can be accessed without passing through a bedroom.

Where these amenities were classified as seriously defective on one or more of space, layout, cleanability or location it must be classified as being unfit.

Analysis of the 13,000 dwellings classified as unfit on the basis of unsatisfactory bath or shower and wash hand basin (See Table A5.22) showed that:

- In 65 per cent of unfit dwellings, one or both of the amenities were not present and were consequently seriously defective in relation to location.
- A total of 9,000 (71%) were seriously defective in relation to location.
- Slightly less than 1,000 (8%) were seriously defective in relation to space.
- Approximately one-tenth (1,500; 11%) were seriously defective in relation to layout.
- Nearly one-third (4,000; 31%) were seriously defective in relation to cleanability.
- In 1,900 (15%) the amenities were present but either not working or did not have adequate hot and cold water.

Further analysis of the 13,000 dwellings found unfit on the basis of bathroom amenities (See Table A5.23) shows the following:

- Three-quarters (76%) are vacant dwellings and a little less than one-sixth (15%) are in the owner occupied sector.
- Two-fifths (42%) are in isolated rural areas.
- Approximately one-half were either single storey houses (27%) or detached houses (21%).
- The majority (70%) were built before 1919.

Typically, once again, dwellings that failed to meet the Fitness Standard on the grounds of bathroom amenities were vacant, built before 1919 and located in isolated rural areas.

"It has an effective system for the draining of foul, waste and surface water".

The potential hazards from foul and waste water drainage are considerable, particularly from those parts of the system that are located above ground. It is therefore important that drainage pipes should neither leak nor easily block. Inadequate or leaking surface water drainage can easily cause penetrating damp which can accelerate the deterioration of the fabric of the building.

In 2006 approximately 7,300 dwellings were found to be unfit on the basis of lacking an effective system of drainage. Of these, 83 per cent had roof drainage defects, 84 per cent had seriously defective internal drainage or underground drainage, 45 per cent required a gully to be installed but only three per cent had inadequate or reverse falls preventing the escape of surface water.

Further analysis of dwellings with an ineffective drainage system shows that (See Table A5.24):

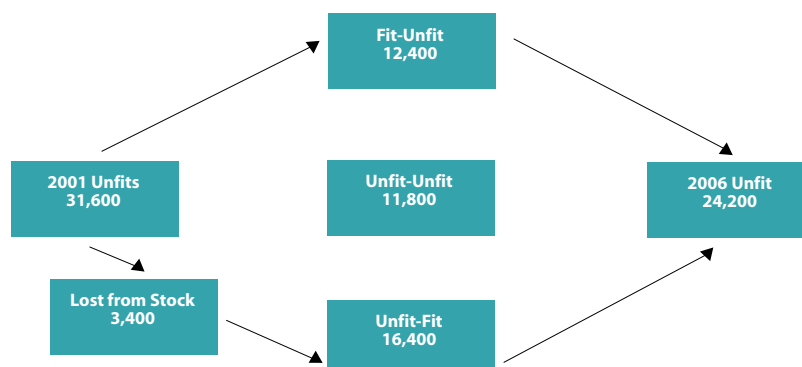
- The great majority (86%) were vacant.
- Nearly three-fifths (56%) were in isolated rural areas.
- Three-fifths were either single storey houses (32%) or detached houses (28%).
- Three-quarters (75%) were built prior to 1919.

Typically, again, dwellings found unfit on the basis of drainage were built before 1919, in isolated rural areas and were vacant in 2006.

5.1.4 The Dynamics of Unfitness 2001 -2006

During the five-year period 2001 -2006, the overall rate of unfitness in Northern Ireland fell from 4.9% (31,600 dwellings) to 3.4% (24,200 dwellings). These basic figures, however, conceal a complex interaction of factors, the overall result of which has seen the rate of unfitness decline by 1.5 percentage points and the number of unfit dwellings by 7,400. By analysing the longitudinal sample of properties surveyed in both 2001 and 2006 in terms of their status and condition, it is possible to shed further light on the dynamics of the process of change in unfitness.

FIGURE 5.13 FLOWS INTO AND OUT OF UNFITNESS, 2001-2006



Components of change

Chapter 3 has already set out the components of change for the stock as a whole. Two of these components are fundamental to understanding the dynamics of unfitness as well: additions to the stock, primarily through the construction of new dwellings, and losses from stock through demolition, dereliction and change of use.

Figure 5.13 shows that:

- Between 2001 and 2006 the stock grew by 57,500 to 705,000, but this net increase disguises the fact that during these five years some 66,400¹⁴ new dwellings have been constructed.
- A total of 12,400 (2.0%) properties that were fit in 2001 became unfit in 2006, a slightly lower number and proportion than that revealed by the 2001 House Condition Survey for the five-year period 1996 -2001 (16,700; 3.0%) and is indicative of an overall slower rate of deterioration than in the previous five years.
- Analysis of the 12,400 properties that were fit in 2001 but were unfit in 2006 shows that:
 - 6,900 (56%) had been in the owner occupied sector in 2001 compared to only 5,500 (45%) in 2006;
 - A further 3,000 (24%) had been privately rented in 2001 compared to 1,700 (14%) in 2006;
 - 1,100 (9%) were vacant in 2001 but by 2006 this had risen to 4,200 (34%);
- A total of 11,800 properties (37 % of all unfit dwellings) that were unfit in 2001 remained unfit in 2006, a slightly higher proportion than in 2001 (34%);
- Analysis of the 11,800 properties which were classified as unfit in both 2001 and 2006 shows that:
 - Almost half (4,300; 36%) were owner occupied in 2001, 1,200 (10%) were in the private rented sector and 6,100 (52%) were vacant;
 - By 2006 the picture had changed only a little with 4,200 (36%) owner occupied, 1,000 (8%) in the private rented sector 6,400 (54%) vacant.
- The rate of improvement was somewhat lower between 2001 and 2006 compared to the previous five-year period. Some 16,400 properties which were unfit in 2001 were made fit by 2006, a lower absolute number to those made fit between 1996 and 2001 (24,300 properties), although as a proportion of unfit properties (52% of those unfit in 2001) it was only a little lower than the proportion made fit between 1996 and 2001 (54%). These statistics would indicate the increasing difficulty of addressing the remaining unfit dwellings in Northern Ireland - many of

¹⁴ DSD, Housing Statistics, 2005-2006, Housing Starts - September 2000 to September 2005

them located in remoter rural areas where there is little desire to live.

- Analysis of the 16,400 properties that moved from unfitness to fitness between 2001 and 2006 shows that:
 - 8,400 (52%) had been owner occupied in 2001, 5,400 (33%) had been privately rented and 1,900 (12%) had been vacant;
 - By 2006 this picture had changed somewhat with 11,400 (70%) in owner occupation, 2,600 (16%) privately rented and only 1,400 vacant.
- Finally, a total of 3,400 (11%) unfit properties were lost from stock over the five-year period 2001 - 2006 through demolitions, dereliction and dwellings which changed their use. Most of these 2,600 (75%) were vacant in 2001. This "improvement" rate was the same as during the period 1996 -2001 when the comparable figure was 11 per cent.

5.1.5 Future Action

During the course of their survey of each property the surveyors were asked not only to assess whether the property was unfit, but if so what was the most appropriate course of action in respect of that property. Recommended actions were divided into those suitable for dwellings where the surveyor recommended retention (72%) and those recommended for demolition (29%). This is similar to 2001 when surveyors recommended that 71 per cent of unfit properties be retained and the remaining 29 per cent be demolished. In 2006, of the unfit dwellings to be retained the vast

majority (85%) were recommended for repair or improvement on a single unit basis (61% of all unfit dwellings). For a further 2,700 (11%) unfit dwellings the survey indicated that the best course of action was area based repair or improvement.

Table 5.9 shows how this contrasts with the recommendations for the dwelling stock as a whole where for 94 per cent there was no action recommended.

Recommended actions for unfit dwellings varied considerably by tenure which in turn reflected the rate of unfitness in each of the five tenures.

- For vacant stock (58% of all unfit dwellings) surveyors recommended demolition for 38 per cent and repair or improvement for the remainder.
- For the occupied stock demolition was recommended for only 23 per cent of unfit occupied dwellings.
- In the owner occupied stock repair or improvement was recommended for 82 per cent of unfit dwellings.
- In the private rented sector the figure was even higher at 85 per cent with 15 per cent being recommended for demolition.

5.1.6 Summary and Conclusion

Between 2001 and 2006 there was again a marked improvement in the condition of Northern Ireland's housing stock. The headline unfitness rate fell from 4.9 per cent in 2001 to 3.4 per cent in 2006 in

TABLE 5.9 RECOMMENDED FUTURE ACTION FOR UNFIT DWELLINGS, 2006

	Unfit Dwellings		All Dwellings	
None	-	-	659,500	94%)
Repair/Improve Single Dwelling	14,700	(61%)	35,300	(5%)
Repair/Improve Block/Group of Dwellings	2,700	(11%)	3,400	(<1%)
Demolish/Replace Single Dwelling	6,400	(27%)	6,400	(<1%)
Demolish/Replace Block/Group of Dwellings	400	(2%)	400	(<1%)
Total	24,200	(100%)	705,000	(100%)

response to both the greater economic prosperity and confidence in the housing market, encouraging ongoing investment in the private sector, and to ongoing investment in social housing.

In spite of this there still remained 24,000 dwellings that were statutorily unfit. The most common reasons for unfitness were serious disrepair, unsatisfactory facilities for the preparation and cooking of food, and the lack of a suitably located bath or shower and wash hand basin. These unfit dwellings were more likely to be in the private sector; in rural areas (particularly in isolated rural areas) and to have been built before 1919. Nearly three-fifths of them were vacant. The most vulnerable sections of society - the lone elderly, (particularly those over 75 years of age) the unemployed, people who were sick or had a disability and households on low incomes were all to be found in disproportionately high numbers in unfit dwellings.

5.2.0 State of Repair - Introduction

Assessing the state of the dwelling stock and the associated repair costs have been key elements in the Northern Ireland House Condition Surveys since 1974.

The method of assessing and modelling repair costs has been refined and has become more complex in more recent surveys, but the basic approach to disrepair has remained essentially the same.

- Surveyors were trained to observe and record the presence of defects.
- The extent of the defects was recorded on the survey form.
- Particular treatments were specified by the surveyor and recorded.
- The cost of the required work was then estimated.

For the 2006 survey, the estimation of the repair costs was, once again carried out by the Building Research Establishment using its most up to date computer-based model. These repair costs provided a sound estimate of the aggregate cost of the remedial work required. The costs were those

required to bring the dwelling into good repair using a high standard of professional workmanship and good quality materials and components. The scale of the treatment as determined by the surveyor is the most critical factor in assessing repair costs. In order to negate the influence of dwelling size on repair costs, the model also produced standardised costings based on £ per m².

This model was exactly the same as that used for the 2006 English House Condition Survey thus permitting direct comparisons with England. There have been slight modifications to the model since 2001 and slight modifications from the English model but despite this the figures between 2001 and 2006 remain broadly comparable.

For the 2006 survey, repairs were classified into urgent repairs, basic repairs and comprehensive repairs:

Urgent Repairs - work which needs to be undertaken to prevent further significant deterioration to the external fabric of the short term.

Basic Repairs - urgent repairs to the exterior fabric plus additional visible work required to be carried out to the internal and external fabric of the dwelling in the medium term.

Comprehensive repairs - basic repairs plus any replacements the surveyor has assessed as being needed in the next 10 years.

The state of repair of a dwelling is also a key element of the "Decent Home" standard which has now been introduced into Northern Ireland. In order for a dwelling to be considered "decent" it must be in "a reasonable state of repair". This chapter also looks at the decent homes standard (including the state of repair) in more detail at a later stage.

5. 2.1 Dwelling Faults

Surveyors observed and recorded faults in slightly more than one-half (365,800; 52%) of all dwellings. This is a reduction since 2001 when the comparable figure was 59 per cent (see Table 6.1) and is to be

explained by similar factors to those explaining the fall in the proportion of dwellings failing the Fitness Standard (see Chapter 5): in summary the increase in the number of new dwellings being built annually and the continuing level of improvement to the existing housing stock maintained the rate of market renewal between 2001 and 2006.

Dwelling Faults - Element (Table A5.25)

Dwellings were much more likely to have faults in their exterior fabric (304,800; 43%) than their interior fabric (180,600; 26%) or their amenities (bath/shower, WC, kitchen sink, worktops, etc.) and services (electricity, gas, water) (91,100; 13%). In 2001, also the proportion of dwellings with faults to their exterior fabric (54%) was considerably higher than to the interior fabric (22%) and amenities and services (52,100; 8%). These figures indicate a considerable improvement in the state of exterior repair of dwellings since 2001 while the number of dwellings affected by disrepair to the interior and amenities and services has slightly increased.

This is a reversal of the trend seen between 1996 and 2001 when a massive improvement in the state of repair of amenities and services and a very considerable improvement in interior repair had occurred. In 2001 these large improvements were probably due to a combination of the introduction of natural gas to Northern Ireland, with the consequent large uptake of the opportunity to change heating systems, and a greater interest in home improvement facilitated by the falling real price of new kitchens and bathrooms during that period.

The increase in the number of dwellings affected by internal, amenities and services disrepair and the larger decrease in external disrepair possibly reflects the increasing age of those internal amenities and services not improved between 1996 and 2001, a greater perceived importance in maintaining the main fabric of the dwelling rather than internal improvements and possibly a fall in the amount of disposable income available for home improvements.

However, between 1996 and 2006 the proportion of the total stock affected by disrepair has fallen

considerably by 21 percentage points for all disrepair, 14 percentage points for external disrepair, 13 percentage points for internal disrepair and 22 percentage points for disrepair to amenities and services.

Further analysis of faults to exterior elements shows:

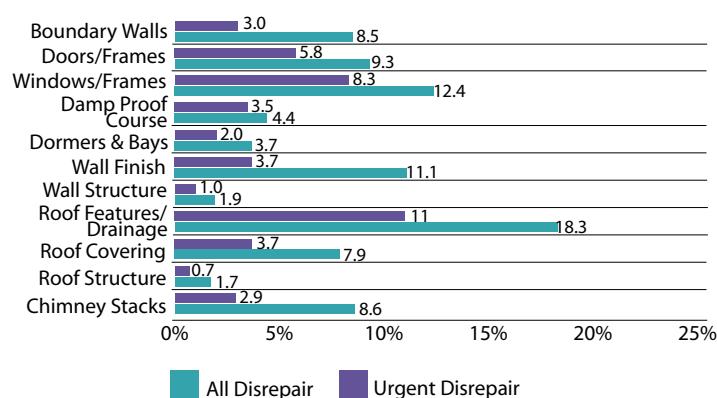
- Faults to roof elements were the most common type recorded (179,000; 25%), affecting, in particular, roof features such as fascias, rainwater gutters and down pipes and valley gutters (129,000; 18%).
- Faults to boundaries and plots were recorded in less than one-fifth of dwellings (18%; 123,200).
- Faults to windows and doors were recorded in approximately one-sixth of dwellings (114,600; 16%).
- Less than one-sixth of dwellings (108,800; 15%) had faults in their wall elements with the most common faults affecting the wall surface (pointing or rendering).
- Structural faults to roofs and walls were relatively rare, being found in less than two per cent of properties in both cases.

In the case of interior disrepair faults were most commonly recorded to ceilings (101,000; 14%) and walls (83,600; 12%). Smaller proportions of dwellings had faults to interior doors (33,900; 5%), windows (31,600; 5%), floors (29,400; 4%) and stairs (20,600; 3%).

Surveyors also had to record their estimate of the urgency of the treatment required for any faulty exterior elements. Figure 5.14 illustrates the relationship between the existence of external faults and the required urgency of repair to those elements. The overall pattern was not dissimilar for all disrepair, with urgent repairs required to 52 per cent of all faults to external dwelling elements. However, where faults were recorded to the damp proof course or roof features/roof drainage the figures were higher (80% and 60% respectively) reflecting the damage that penetrating or rising damp can do to the fabric of the dwelling.

In addition, more than two-thirds of properties where faults were recorded to window frames or doors required urgent repairs to those elements (67% and 62% respectively). Overall, almost 165,000 (23%) dwellings had faults which required urgent attention.

FIGURE 5.14 EXTERNAL FAULTS AND THEIR URGENCY, 2006



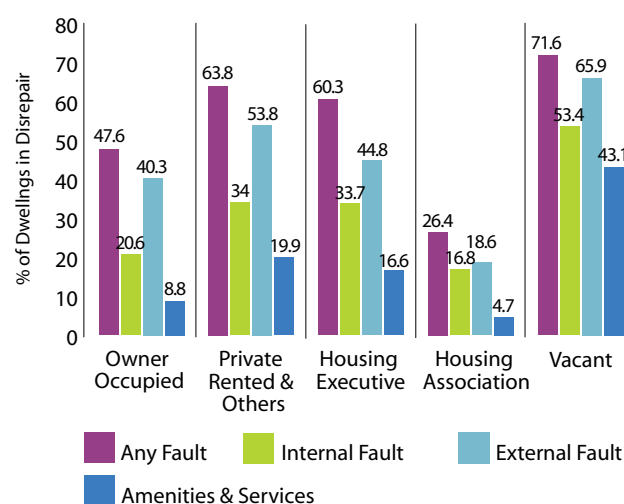
Disrepair - Tenure (Table A5.26)

Disrepair to the external fabric or to amenities and services was clearly associated more with some tenures than others:

- Nearly three-quarters (72%) of vacant dwellings had faults. The likelihood of disrepair was clearly associated with the length of time a dwelling had been vacant. More than three-fifths (64%) of all dwellings that had been vacant for less than one year had at least one fault, whereas for dwellings vacant for more than one year the figure rose to 85 per cent. In the case of urgent faults the difference was even greater; 43 per cent of dwellings vacant for less than one year required at least one urgent repair compared to 71 per cent for dwellings vacant for more than one year.
- Faults were recorded in 64 per cent of privately rented dwellings.
- The proportion of occupied Housing Executive dwellings with faults was 60 per cent.
- Slightly less than one-half of owner-occupied dwellings had faults (48%).

- Approximately one-quarter (26%) of Housing Association properties had faults.
- In the case of internal disrepair there is a similar pattern to that for all disrepair. More than one-half of all vacant properties (53%) and one-third (34%) of privately rented and Housing Executive properties required repair to the internal fabric. The percentages were lower in the case of owner-occupied (21%) and Housing Association properties (17%).
- A broadly similar pattern emerges for external repairs. Two-thirds (66%) of all vacant properties, more than one-half (54%) of privately rented and less than one-half (45%) of Housing Executive properties required repair to the external fabric. Two-fifths of owner-occupied (40%) required external repairs whereas less than one-fifth (19%) of Housing Association properties were in need of external repairs.
- In the case of amenities and services the pattern is again similar where vacant properties (43%) once again recorded the highest proportion of disrepair to these elements. Repair to amenities and services were required in 20 per cent of privately rented, 17 per cent of Housing Executive, nine per cent of owner-occupied and five per cent of Housing Association properties.

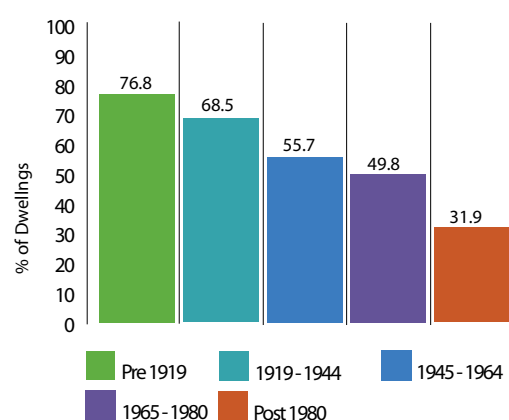
FIGURE 5.15 DISREPAIR AND DWELLING TENURE, 2006



Disrepair - Dwelling Age (Table A5.27)

There is a clear relationship between dwelling age and disrepair: the older the dwelling the more likely it was to have a fault with the internal or external fabric or its amenities and services. (See Figure 5.16)

FIGURE 5.16 DISREPAIR AND DWELLING AGE, 2006

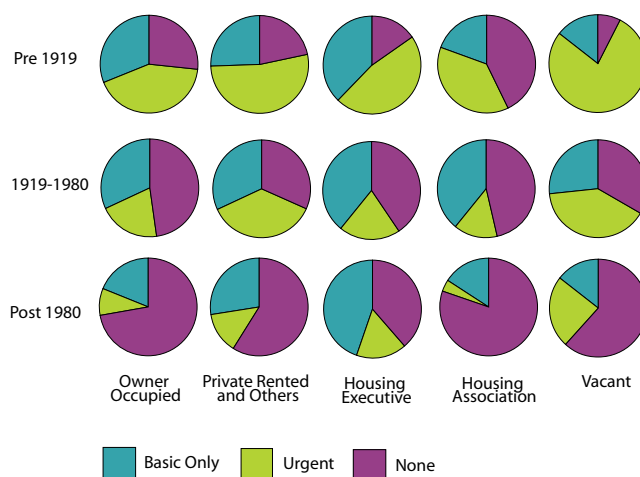


- Dwellings built before 1919 and those built between 1919 and 1944 were most likely to have faults (77% and 69% respectively). This proportion steadily declined through the age groups to 32 per cent for houses built since 1980.
- The pattern is repeated for internal disrepair - proportions of dwellings with faults in their internal fabric declined from 49 per cent for dwellings built before 1919 to 13 per cent for those built after 1980.
- For external disrepair the pattern is again repeated with 70 per cent of properties built before 1919 having faults in their external fabric. A slightly lower percentage (62%) of properties built between 1919 and 1944 had external faults while less than one-quarter (24%) of properties built since 1980 had external fabric faults.
- In the case of amenities and services there was an increase in the incidence of disrepair with more than one-quarter (28%) of all pre-1919 dwellings having faults to these elements compared to slightly more than one-twentieth (7%) of all post 1980 dwellings.

- Figure 5.17 illustrates the association between disrepair and dwelling age and tenure. Urgent action to deal with disrepair was associated with:

- Privately rented and vacant properties built before 1919 where at least half of all dwellings in these categories required urgent repairs;
- Owner occupied and Housing Executive dwellings built before 1919 and vacant dwellings built between 1919 and 1980 where at least 40 per cent of all dwellings in these categories required urgent repairs;
- Housing Association properties built before 1919 where at least 38 per cent of all dwellings in this category required urgent repairs.

FIGURE 5.17 DISREPAIR BY DWELLING AGE AND TENURE, 2006



Disrepair - Dwelling Type (Table A5.28)

There is only a small discernible relationship between disrepair and dwelling type. Terraced houses (61%) had the highest incidence of disrepair and flats had the lowest (40%). The pattern is similar for internal and external disrepair. However, flats had the highest proportion of stock with amenities and services in disrepair (16%) and semi-detached houses had the lowest (10%). This is partly a function of the above-average vacancy rates in flats (14%), which is double that found in all other dwelling types.

Disrepair - Dwelling location (Table A5.29)

There was no meaningful difference between the rate of disrepair for the urban (51%) and rural (53%) dwelling stock. However, it was higher in isolated rural areas (57%) and the BMA (54%).

- Interior disrepair was higher in isolated rural areas (30%) and the BMA (27%) compared to 22 per cent in small rural settlements and 24 per cent in district and other towns.
- Half of the dwellings in isolated rural areas suffered from external disrepair compared to the other locations where it ranged from 39 per cent in district and other towns and 42 per cent in small rural settlements to 44 per cent in the BMA.
- Amenities and services disrepair was highest in isolated rural areas (18%) with the other locations recording 11 per cent for small rural settlements, 12 per cent in the BMA and 13 per cent in district and other towns.

5.2.2 Repair Costs

Urgent, Basic and Comprehensive Repair Costs

The BRE model provided a sound estimate of the actual costs¹⁵ of any remedial work specified by the surveyors. The key figures from this model were as follows:

- The average cost per dwelling of urgent repairs for the housing stock as a whole in 2006 was £1,206. This equated to £15.86 per m². (The comparable figures for 2001 were £1,124 and £16.88 per m²).
- The average basic repair cost was £1,476 which was equivalent to £18.70 per m². (The comparable figures for 2001 were £1,427 and £20.39 per m²).
- The average cost for comprehensive repairs was £3,600 or £47 per m². (The comparable figures for 2001 were £2,938 and £45.99 per m²).

Total Repair Costs

The model estimates, therefore, that the resources required to remedy the urgent repairs required to Northern Ireland's dwelling stock as a whole would cost approximately £850 million; for basic repairs the figure was £1.04 billion and for comprehensive

repairs over a 10 year period, £2.5 billion. The previous section already indicated in physical terms how the standard of repair improved between 2001 and 2006.

This improvement was not reflected in the financial estimates. In nominal terms the total resources required to remedy urgent and basic disrepair has increased (by £122 million and £116 million respectively).

The estimated repair costs continue to indicate that substantial resources are required on an ongoing basis to ensure that Northern Ireland's dwelling stock does not deteriorate.

Distribution of Repair Costs

Closer analysis of the modelled figures shows that a relatively small proportion of dwellings in a very poor state of repair skewed the distribution of repair costs (see Table 5.10).

TABLE 5.10 THE DISTRIBUTION OF REPAIR COSTS, 2006

Actual Repair Required Costing at Least (£)		
% of Dwelling Stock	Urgent	Basic
1	26,581	30,282
2	13,459	14,757
5	4,171	5,729
10	1,619	2,464
25	322	628
50	-	-
Mean (£)	1,205	1,475
Median (£)	-	-
Mean per m ² (£)	15.86	18.70
Median per m ² (£)	-	-

This is reflected in the considerable disparities between the means and medians for both urgent and basic repairs. It is also reflected in the fact that in the case of urgent repairs only one per cent of dwellings required repairs costing more than approximately £26,600, only five per cent required

¹⁵ This included costs of preliminary work, access and any relevant uplifts - these amount on average to one-third of actual repair costs

costs of more than approximately £4,200, and at least 50 per cent required no urgent repairs at all.

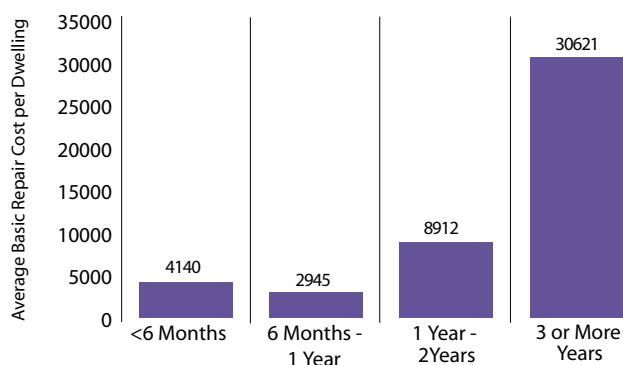
A similar pattern existed for basic repairs. One-half of the stock required no repairs, and only five per cent required repairs costing more than approximately £5,700.

Repair Costs - Tenure (Table A5.30)

There was a clear association between estimated repair costs and tenure.

- The average urgent repair cost for vacant dwellings was much higher than for any occupied tenure. At £10,570 it was approximately 17 times higher than for the occupied stock as a whole (£640). A similar concentration is apparent for basic repair costs where the figure for vacant stock was £11,300 compared to only £880 for occupied dwellings. Indeed, one-half of the total urgent repair costs for all stock and more than two-fifths (44%) of the total basic repair costs was needed for the six per cent of the housing stock that were vacant.
- The length of time that a vacant dwelling had been vacant was an important factor in determining the cost required to remedy the repairs (see Figure 5.18). For example, the average basic repair cost increased from £4,140 for dwellings that had been vacant for less than six months to £30,600 for those that had been vacant for at least three or more years, more than a seven fold increase.

FIGURE 5.18 REPAIR COSTS OF VACANT DWELLINGS AND PERIOD OF VACANCY, 2006

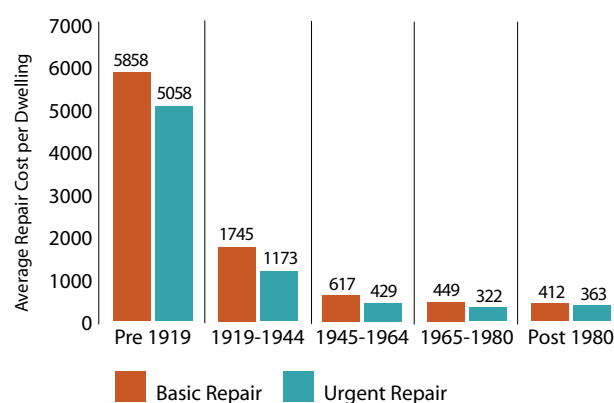


- The private rented sector had the next highest average urgent repair cost (£1,017) and average basic repair cost (£1,360). In all, over £109m was required to remedy basic repair costs in this sector.
- Owner-occupied dwellings required an average of £677 for urgent and £940 for basic repairs. This amounted to a total bill of over £440m (42% of the total) for basic repairs.
- The average repair costs for social housing were much lower. The average basic repair cost for Housing Executive dwellings was £329 (a total basic repairs bill of £31 million) and £146 for housing association homes (a total basic repairs bill of a little over £3 million).

Repair Costs - Dwelling Age (See Table A5.31)

Figure 5.19 shows that there was a clear positive relationship between dwelling age and the cost of disrepair.

FIGURE 5.19 REPAIR COSTS AND DWELLING AGE, 2006



The pre-1919 stock had by far the highest average basic and urgent repair costs (£5,858 and £5,058 respectively). As the age of dwellings declined this fell to only £412 for basic repairs and £363 for urgent repairs for dwellings built since 1980.

Repair Costs - Dwelling Type (Table A5.32)

There were some considerable differences in the average repair costs for different dwelling types. In the case of basic repair costs these ranged from

£3,109 for detached dwellings to only £1,017 for flats and £768 for terraced houses. However, this difference was partly a function of the different sizes of these dwelling types. Using standardised cost the picture is somewhat different. In this case the costs per m² for detached houses (£22) and flats (£28) were reversed but still proportionately much closer. Terraced houses (£11) and semi-detached houses (£12) had the lowest standardised costing while the figure for single storey houses (£29) was actually higher than any other dwellings. However, there is little doubt that the higher level of vacancy in single storey houses was a major determinant of this pattern.

The figures for urgent repairs show a similar picture with the average cost per dwelling being highest for detached houses (£2,680) and single storey houses (£1,440), and lowest for terraced houses (£598) and semi-detached houses (£758). The average cost for flats was £885. The relative difference again reduced

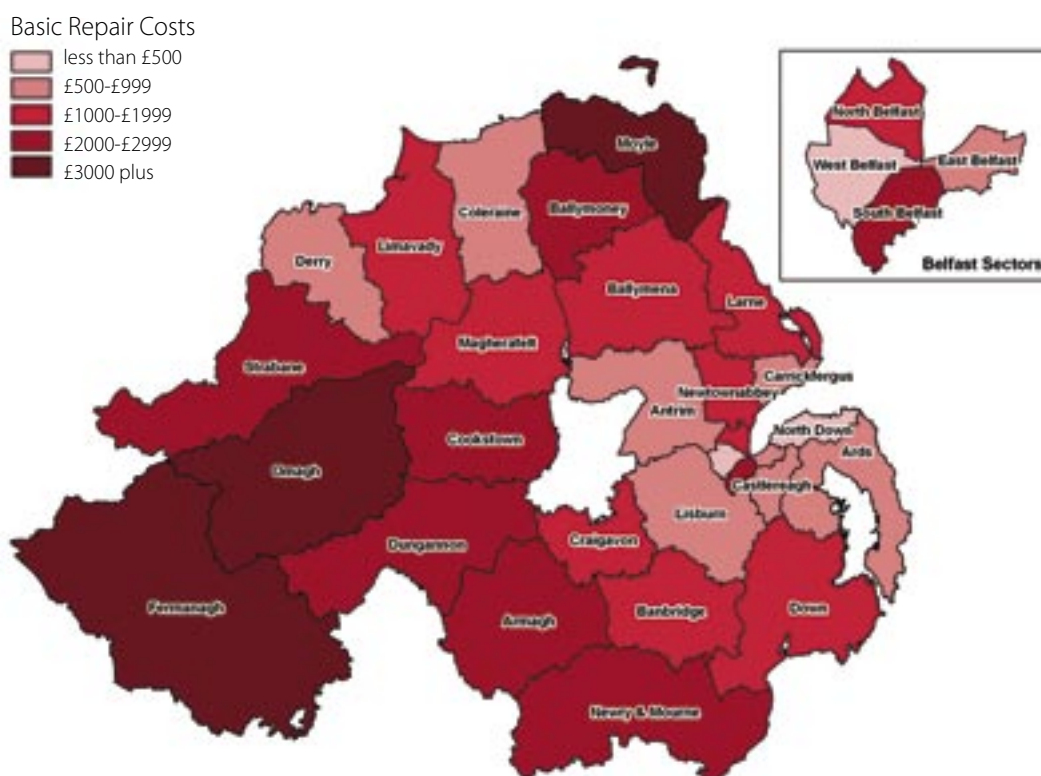
considerably for costs per m². Once again semi-detached and terraced housing had the lowest costs at £9m², compared to £19m² for detached houses. Indeed, in the case of urgent costs per m² it was flats and single storey houses that had the highest figure at over £25m² in each category.

Repair Costs - Dwelling Location (Table A5.33)

There was a major difference in the average repair costs for urban and rural dwellings. Rural dwellings had an average basic repair cost (£2,778), over three times the corresponding figure for urban dwellings (£919). This is not a function of dwelling size; basic repair costs per square metre were £32 for rural dwellings and £13 for urban dwellings. A similar picture emerged for urgent repair costs; £2,384 for rural and £702 for urban dwellings.

Indeed in the case of isolated rural dwellings the average basic repair cost rose to £4,976 (£55 per m²) compared to only £925 (£11 per m²) for small rural settlements. The much higher vacancy rate in

MAP 5.2 AVERAGE BASIC REPAIR COSTS BY DISTRICT COUNCIL AREA, 2006



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isolated rural areas (see Chapter 3) was an important factor in this difference.

Repair Costs - District Council (Table A5.34)

Average basic repair costs for all dwellings in 2006 by District Council area showed a wide variation (see Map 5.2), but the pattern was not dissimilar to the pattern of disrepair costs for 2001 and of unfitness in 2006. The lowest average basic repair costs per dwelling (£500 - £700) were all in district council areas close to Belfast. Derry City Council area had the next lowest average basic repair cost of £800. Districts with the highest average basic repair costs tended to be located in the west of Northern Ireland. Those with repair costs averaging more than £2,000 were mostly located in a South West - North West chain stretching from Fermanagh to Moyle. Three districts had basic repair costs which averaged more than £3,000 per dwelling: Omagh, Fermanagh and Moyle.

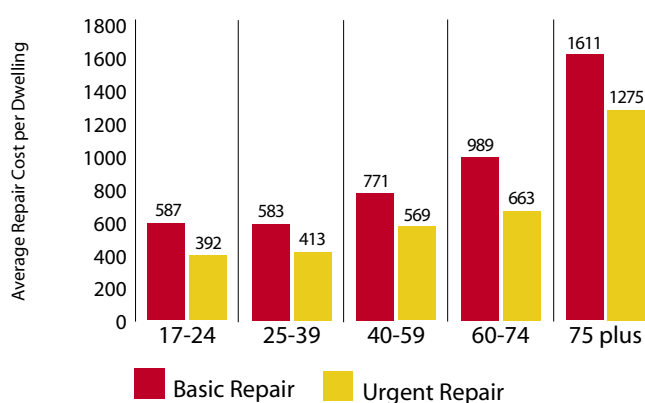
Repair Costs - Household Characteristics (Table A5.35)

There were considerable variations in the repair costs required to the dwellings occupied by households with different characteristics.

Age of Household Reference Person

Dwellings occupied by an elderly household reference person (and particularly one aged at least 75) had a much higher average repair cost than the comparable figure for the occupied stock as a whole. For example, for dwellings with a household reference person aged at least 75 the basic repair cost of £1,611 was nearly double the average of £880. For those aged 60 to 74 it was £989

FIGURE 5.20 REPAIR COSTS AND AGE OF HOUSEHOLD REFERENCE PERSON, 2006



(see Figure 5.20) compared to under £600 for those in both the 17 to 24 and 25 to 39 age groups.

Household Type

Lone parent and small family households lived in dwellings with the lowest average basic repair costs (£467 and £554 respectively). In the case of lone parents this reflected their propensity to live in social housing where repair costs are lower.

By far the highest average basic repair costs were found in dwellings occupied by lone older households (£1,435); the next highest was for large adult households (£947). Evidence for the size of this gap was reinforced when repair costs per m² were examined. Here too lone older parents lived in dwellings with much higher average basic repair costs (£16 per m²) compared to all other household types.

Employment Status

Retired household reference persons were more likely to live in dwellings with higher repair costs (average basic repair costs of £1,034). Further analysis indicated that these tended to be in isolated rural areas and associated with the farming community. Dwellings with household reference persons who worked full or part time had the lowest average basic repair costs (£803). Students and others were discounted due to the small sample size.

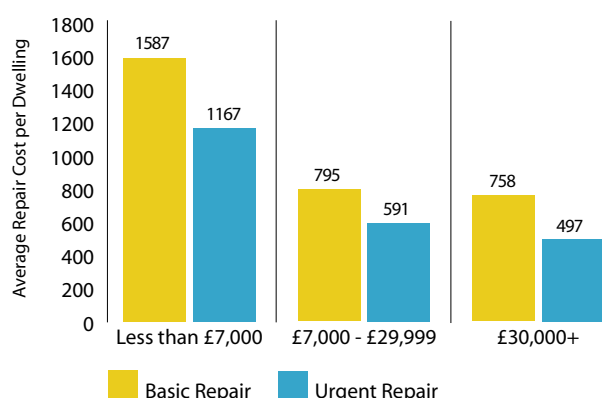
Annual Income

Households with the lowest incomes tended to live in dwellings with the highest basic repair costs. Those with an income below £7,000 per year had basic repair costs (£1,587) that were double the costs of households in higher income groups (under £800 in each group). Analysis of the costs per m² showed a similar pattern with those for households having an income below £7,000 (£19) being three times that for those with an income above £30,000 (£6).

Household Religion

Protestant households lived in dwellings with an average basic repair cost of £912 compared to Catholic households where the comparable figure was only £856. However, this was essentially a function of the different age profiles: a higher proportion of Protestant households are elderly (See Chapter 4).

FIGURE 5.21 REPAIR COSTS AND ANNUAL INCOME, 2006



5.2.3 Repairs and Improvements 2001 - 2006

As part of the household survey, respondents were asked about repairs and improvements carried out to their dwellings during the previous five years. This provided a valuable insight into the resources committed to the existing dwelling stock by occupiers and landlords. Indeed it is most likely an underestimate, not only because respondents sometimes forget, but also because with a recent change of occupancy, the full five-year repair/improvement history of the dwelling will not be known.

Overall some 331,000 dwellings had some form of repair or improvement work carried out between 2001 and 2006. This represented one-half (50%) of

the total occupied stock. The 2001 House Condition Survey found that some 337,200 dwellings had been repaired or improved during the previous five years. This represented more than one-half (55%) of the stock at that time. This lower percentage reflected the growing proportion of new dwellings in the stock and the steadily improving conditions of the existing stock as a whole.

- The highest rates of repair and improvement were among the Housing Executive (65%) and owner occupied (52%) stock, reflecting the ongoing commitments of the Housing Executive to maintain and improve the standard of housing in Northern Ireland and of owner occupiers wishing to improve their homes.
- In the housing association and private rented sectors, the figures were much lower. Only 37 per cent of housing association dwellings had been repaired or improved in the previous five years reflecting the modern age profile of the stock. Only 40 per cent of privately rented dwellings had been repaired or improved, possibly reflecting a lack of investment incentives for private landlords. The high turnover of occupants in privately rented dwellings, however, also resulted in limited knowledge among interviewees of the extent of repair within the previous five years, hence the high proportion of "don't know" responses in Table 5.11.

TABLE 5.11 REPAIRS AND IMPROVEMENT WORK BY TENURE, 2006

(All Occupied and have had repairs/improvements in last 5 years)

Tenure	Repair/Improvement		No Work		Don't Know		Total Occupied Dwellings	
Owner Occupied	242,700	52%	215,500	46%	5,800	1%	464,000	100.0%
Private Rented	23,500	40%	34,200	58%	1,000	2%	58,700	100.0%
Housing Executive	56,900	65%	29,600	34%	900	1%	87,400	100.0%
Housing Association	7,700	37%	12,800	62%	200	1%	20,700	100.0%
Total	330,800	52%	292,100	46%	7,900	1%	630,800	100.0%

TABLE 5.12 REPAIRS AND IMPROVEMENT WORK, 2006

Repair/Improvement Work	Total Dwellings	% of Total Stock
Re-Roofing/Roof Structure	29,800	4.2
Structural Repairs	14,700	2.1
Repointing/Rendering	16,600	2.4
Replacing Windows	128,500	18.2
Replacing Doors	113,500	16.1
Inserting/Replacing DPC	12,900	1.8
Internal Plastering	39,400	11.8
New Floors	32,200	4.6
Electrical Wiring	47,100	6.7
Providing/Refitting Kitchen	137,100	19.4
Providing/Refitting Bathroom	138,900	19.7
Installing/Replacing Central Heating	117,600	16.7
Rearranging Internal Space/Flat Conversion	16,100	2.3
Roof Insulation	30,300	4.3
Cavity Wall Insulation	19,300	2.7
Garage Added	3,400	0.5
Conservatory Added	9,700	1.4
Extension	34,700	4.9
Combining Two or More Rooms	10,300	1.5
Other Work	51,200	7.3
All Dwellings	705,000	

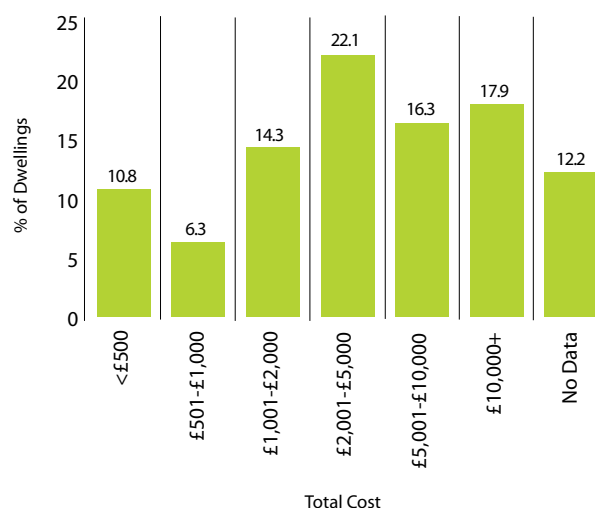
- The proportion of dwellings with repair or improvement work carried out in the period 2001 to 2006 also varied by age. The highest proportions, however, were for dwellings built between 1981 and 1990 (65%), 1965 and 1980 (60%) and between 1945 and 1980 (58%), not as might be assumed for dwellings built prior to 1919 (52%).

Table 5.12 shows that the most common repair/improvement work carried out over the five year period 2001 to 2006 was providing/refitting a bathroom (138,900 dwellings; 20% of the stock), providing/refitting a kitchen (137,100 dwellings; 19% of the stock), replacing windows (128,500 dwellings; 18% of the stock), installing/replacing central heating (117,600 dwellings; 17% of the stock) and replacing doors (113,500 dwellings; 16% of the

stock). For all other work the number of dwellings affected was much lower.

Figure 5.22 illustrates the cost breakdown of repair and improvements carried out in the 331,000 dwellings that had work carried out between 2001 and 2006. In more than one-fifth (22%) of dwellings the work cost between £2,001 and £5,000, in 16 per cent of dwellings the cost was between £5,001 and £10,000. However, in 18 per cent of dwellings the cost was more than £10,000. The majority of respondents (193,500; 58%) stated that they had paid all of the cost themselves and the remainder had contributed some of the expenditure (8%) or none of it (34%). In the case of those households who had contributed to the cost of the work (25,300 households) the most common contribution (22%) was £2,001 to £5,000.

**FIGURE 5.22 REPAIR AND IMPROVEMENT WORK
- TOTAL COST, 2006**



5.2.4 State of Repair - Summary

There was a marked improvement in the state of repair of Northern Ireland's dwelling stock between 2001 and 2006. The percentage of the dwelling stock with at least one fault had fallen from 59 per cent in 2001 to 52 per cent in 2006.

Disrepair was particularly prevalent in vacant dwellings (72%) but it was also higher than average in the private rented sector (64%). There was a clear relationship between the age of the dwelling and disrepair with nearly three-quarters of all dwellings built before 1945 having faults.

The average basic repair cost for the stock as a whole was £1,206 giving a total repairs bill of £1,040 million. Average repair costs were particularly high in vacant dwellings and, in the case of the occupied stock, in the private rented sector.

TABLE 6.1 DECENT HOMES - KEY FIGURES, 2001-2006

	Non-Decent Homes		Non-Decent Homes		Non-Decency Rate	
	2001		2006		2001	2006
	No	%	No	%	%	%
Tenure						
Owner Occupied	101080	49.1	95710	59.0	23.4	20.4
Private Rented and Others	23350	11.3	21430	13.2	47.3	26.5
Housing Executive	57450	27.9	23100	14.3	49.5	24.7
Housing Association	1330	0.6	1910	1.2	7.4	8.9
Vacant	22580	11.0	19950	12.3	70.7	49.5
Dwelling Age						
Pre 1919	58340	28.4	46720	28.8	50.1	41.1
1919 - 1944	31090	15.1	21500	13.3	45.0	30.3
1945 - 1964	52700	25.6	40380	24.9	41.2	28.6
1965 - 1980	61670	30.0	36020	22.2	38.6	21.3
Post 1980	1990	1.0	17480	10.8	1.1	8.3
Dwelling Type						
Bungalow	42050	20.4	34600	21.3	26.8	21.6
Terraced House	86090	41.8	54710	33.8	43.0	24.3
Semi-Detached House	31680	15.4	29180	18.0	25.7	20.7
Detached House	28430	13.8	25680	15.8	24.7	21.0
Flat/Apartment	17540	8.5	17930	11.1	34.0	32.0
Dwelling Location						
All Urban	140560	68	108680	67.0	32.3	22.0
All Rural	65230	32	53420	33.0	30.6	25.3
All Dwellings	205790	100.0	162100	100.0	31.8	23.0

TABLE 6.2 FUEL POVERTY - KEY FIGURES, 2001-2006

	Homes in Fuel Poverty		Homes in Fuel Poverty	
	2001 (Revised)		2006	
	No	%	No	%
Tenure				
Owner Occupied	97880	22.8	148040	31.8
Private Rented and Others	21420	44.0	35250	44.1
Housing Executive	46070	40.1	37790	40.8
Housing Association	1750	9.9	4500	21.1
Dwelling Age				
Pre 1919	43750	44.0	51810	54.4
1919 - 1944	25660	40.2	27560	41.4
1945 - 1964	37110	30.2	51710	38.2
1965 - 1980	40360	26.0	52750	32.2
Post 1980	20240	11.9	41750	21.1
Dwelling Type				
Bungalow	45760	30.9	56830	38.0
Terraced House	54060	28.5	76920	35.8
Semi-Detached House	29070	24.2	40640	30.6
Detached House	26960	25.0	36490	31.9
Flat/Apartment	11270	24.6	14700	30.9
Dwelling Location				
All Urban	103960	25.0	152850	32.8
All Rural	63160	32.5	72730	37.7
All Dwellings in Fuel Poverty	167120	27.3	225580	34.2

TABLE 6.3 HHSRS- KEY FIGURES, 2006

	No Category 1 Hazards		Category 1 Hazards	
	2006		2006	
	No	%	No	%
Tenure				
Owner Occupied	375180	80.0	93680	20.0
Private Rented and Others	65440	80.9	15430	19.1
Housing Executive	85210	91.2	8230	8.8
Housing Association	20860	96.9	670	3.1
	21210	52.6	19090	47.4
Dwelling Age				
Pre 1919	66420	58.4	47390	41.6
1919 - 1944	50510	71.1	20520	28.9
1945 - 1964	114190	80.8	27170	19.2
1965 - 1980	146210	86.4	23040	13.6
Post 1980	190570	90.9	18980	9.1
Dwelling Type				
Bungalow	124480	77.8	35450	22.2
Terraced House	188860	83.8	36520	16.2
Semi-Detached House	112980	80.0	28260	20.0
Detached House	91900	75.1	30510	24.9
Flat/Apartment	49680	88.7	6360	11.3
Dwelling Location				
Belfast Urban Area	234490	85.1	40910	14.9
District/Other Town	177690	81.4	40720	18.6
All Urban	412180	83.5	81630	16.5
Small Rural Settlement	84710	79.3	22180	20.7
Isolated Rural	71010	68.1	33290	31.9
All Rural	155720	73.7	55470	26.3
All Dwellings	567900	80.6	137100	19.4

key government measures-decent homes and fuel poverty and the housing health and safety rating system

6.1.0 Decent Homes - Introduction

Decent Homes was launched in April 2000 when the Government published a Housing Green Paper entitled "Quality and Choice: A Decent Home for All". It was the first comprehensive review of housing for 23 years and committed the Government to ensuring that "all social housing is of a decent standard within 10 years".

This goal was reinforced in July 2000 following the Comprehensive Spending Review, which envisaged a significant increase in resources for housing, and especially social housing.

In July 2001 the Department for Transport, Local Government and the Regions (DTLR) published detailed guidance on what is meant by a "decent home". Following a period of consultation as well as some clarification of detail and amendments to the thermal comfort criterion, the definition was published by The Office of the Deputy Prime Minister (ODPM) in April 2002.

In June 2004 The Decent Homes Standard was adopted in Northern Ireland and was introduced to promote measurable improvements to Northern Ireland's housing. All social housing is to meet the Standard by 2010. The standard applicable to Northern Ireland is essentially the same as that in England and follows the definition published by the ODPM referred to above.

The Decent Homes standard applies in England and Wales and a similar measure known as the Index of Housing Quality exists in Scotland.

6.1.1 The Decent Homes Standard - A Summary

A decent home is one that is wind and weather tight, warm and has modern facilities. A decent home meets the following four criteria:

Criterion a: It meets the current statutory minimum standards for housing.

The current minimum standard in Northern Ireland is the Fitness Standard set out in Schedule 5 of the Housing (Northern Ireland) Order 1992 (see Chapter 5).

A decent home is one
that is wind and weather
tight, warm and has
modern facilities

In England an identical standard, (contained in s. 604 of the Housing Act 1985), was replaced in April 2006 by the Housing Health and Safety Rating System, which assesses 29 different hazards that may affect the dwelling. To qualify as a decent home in England the dwelling must not be affected by any Category 1 hazards (those for which statutory action by the Housing Authority is mandatory)

Criterion b: It is in a reasonable state of repair

A dwelling satisfies this criterion unless:

- One or more key building components are old and, because of their condition need replacing or major repair; or
- Two or more of the other building components are old and, because of their condition need replacing or major repair.

Criterion c: It has reasonably modern facilities and services.

Dwellings that fail to meet this criterion are those that lack three or more of the following:

- A reasonably modern kitchen (20 years old or less);
- A kitchen with adequate space and layout;
- A reasonably modern bathroom (30 years old or less);
- An appropriately located bathroom and WC;
- Adequate insulation against external noise (where external noise is a problem);
- Adequate size and layout of common areas for blocks of flats.

Criterion d: It provides a reasonable degree of thermal comfort.

This criterion requires dwellings to have both effective insulation and efficient heating.

Efficient heating is defined as any gas or oil programmable central heating or electric storage heaters or programmable LPG/solid fuel central heating or similarly efficient heating systems that are developed in the future. Heating sources that provide less energy efficient options fail the decent home standard.

Because of the differences in efficiency between gas/oil heating systems and the other heating systems listed, the level of insulation that is appropriate also differs:

- For dwellings with gas/oil programmable heating, cavity wall insulation (if there are cavity walls that can be insulated effectively) or at least 50mm loft insulation (if there is a loft space) is an effective package of insulation.
- For dwellings heated by electric storage/LPG/programmable solid fuel central heating a higher specification of insulation is required: at least 200mm of loft insulation (if there is a loft) and cavity wall insulation (if there are cavity walls that can be insulated effectively).

For the purposes of analysis, all dwellings built since 1990 are assumed to meet the thermal comfort criterion.

6.1.2 Profile of Decent and Non-Decent Homes

In Northern Ireland in 2006 less than one-quarter (23%; 162,100) of all dwellings failed the Decent Homes Standard. This is a significant improvement from 2001 when nearly one-third of dwellings failed the standard (206,000; 32%). In England in 2006 more than one-quarter (27%) failed the Decent Homes Standard (measured on the basis of the Fitness Standard).

Of the 162,100 dwellings that failed the standard more than four-fifths (85%; 137,000, dwellings) failed on the basis of thermal comfort criterion. One-fifth (20%; 31,800) failed on the basis of disrepair and 15 per cent (24,200) on the basis of lacking modern facilities and services. This is a broadly similar picture to 2001 although the percentage on non-decent homes because of thermal comfort has decreased slightly while the percentage failing on both disrepair and modern facilities and services has increased slightly.

However, this average figure for the stock as a whole varied according to dwelling tenure, type, age and location.

Decent Homes and Tenure (Table A6.1)

- Approximately two-thirds (59%) of all dwellings that failed the Decent Homes Standard were

owner occupied and a further 14 per cent were occupied Housing Executive Dwellings.

- The rate of non-decency varied considerably by tenure:
 - It was highest among vacant dwellings (50%);
 - One-quarter (25%) of Housing Executive and slightly more than one-quarter of privately rented properties (27%) failed the Decent Homes Standard;
 - In the owner occupied sector one-fifth of dwellings were non-decent; and in the housing association sector the failure rate was very low (9%) reflecting the age profile of this sector.
- The great majority (84%) of owner occupied dwellings that failed the Decent Homes Standard did so on the thermal comfort criterion. Slightly more than one-tenth failed on disrepair (15%) and on modern facilities and services (13%).
- A similar picture emerged in the private rented sector: 78 per cent failed on the thermal comfort criterion; one-quarter (25%) on the basis of disrepair and 17 per cent on modern facilities and services.
- For Housing Executive dwellings the picture is somewhat different: almost all dwellings that failed the Decent Homes Standard, failed on the thermal comfort criterion (97%); whereas only minimal proportions failed on disrepair (4%) and on modern facilities and services (5%).
- The vast majority of housing association dwellings that failed did so on the basis of the thermal comfort criterion (94%) with minimal numbers failing the disrepair and on facilities/services criteria.
- Vacant dwellings displayed a pattern similar to that for the owner occupied and private rented sectors with nearly four-fifths (78%) failing on the basis of the thermal comfort criterion, 57 per cent on the basis of disrepair and nearly two-fifths (38%) on the basis of facilities and services.

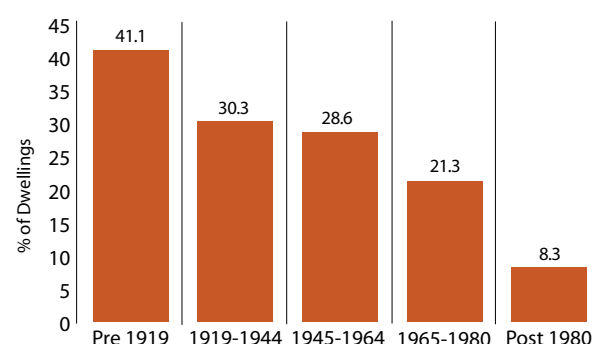
Decent Homes and Dwelling Age (Table A6.2)

As with unfitness, there was a clear association between dwelling age and failing the Decent

Homes Standard: the older the dwelling the more likely it was to fail the Standard (see Figure 6.10).

- Two-fifths (41%) of all dwellings that had been built before 1919 were non-decent.
- This proportion fell gradually to 30 per cent (1919 - 1944), 29 per cent (1945 - 64) and 21 per cent (1965 - 80), before dropping sharply for the post-1980 category where the figure was eight per cent.
- The dwelling age group with the most non-decent homes was pre-1919 (46,700; 29% of all non-decent homes).

FIGURE 6.1 NON-DECENT HOMES AND DWELLING AGE, 2006



- Four-fifths (81%) of pre-1919 homes that failed the Decent Homes Standard did so on the basis of the thermal comfort criterion; nearly two-fifths (38%) on the basis of disrepair and more than one-quarter (27%) on the basis of facilities and services.
- A similar picture emerges for dwellings in the three age categories between 1919 and 1980. The vast majority failed on the basis of the thermal comfort criterion and this proportion failing on the thermal comfort criterion rather than disrepair or modern facilities increased as the age group became more modern. Much smaller proportions failed on the basis of disrepair; 28 per cent for dwellings aged 1919 to 1944 falling to four per cent for those aged 1965 to 1980. In relation to facilities and services less than 10 per cent of

dwellings failed the Decent Home Standard on this basis in the two age groups, 1945 to 1964 and 1965 to 1980.

Decent Homes and Dwelling Type (Table A6.3)

One-third (34%) of all non-decent homes were terraced houses and a little over one-fifth (21%) were single storey houses. The highest rates of non-decency were found in flats and apartments (32%) and terraced housing (24%). Semi-detached and detached houses both had the lowest proportion (21%) of non-decent homes.

- For all dwelling types more than three-quarters of those properties that failed the Decent Homes Standard did so, on the basis of the thermal comfort criterion.
- Detached houses (33%) were much more likely to fail the Decent Homes Standard on the basis of disrepair than other dwelling types.

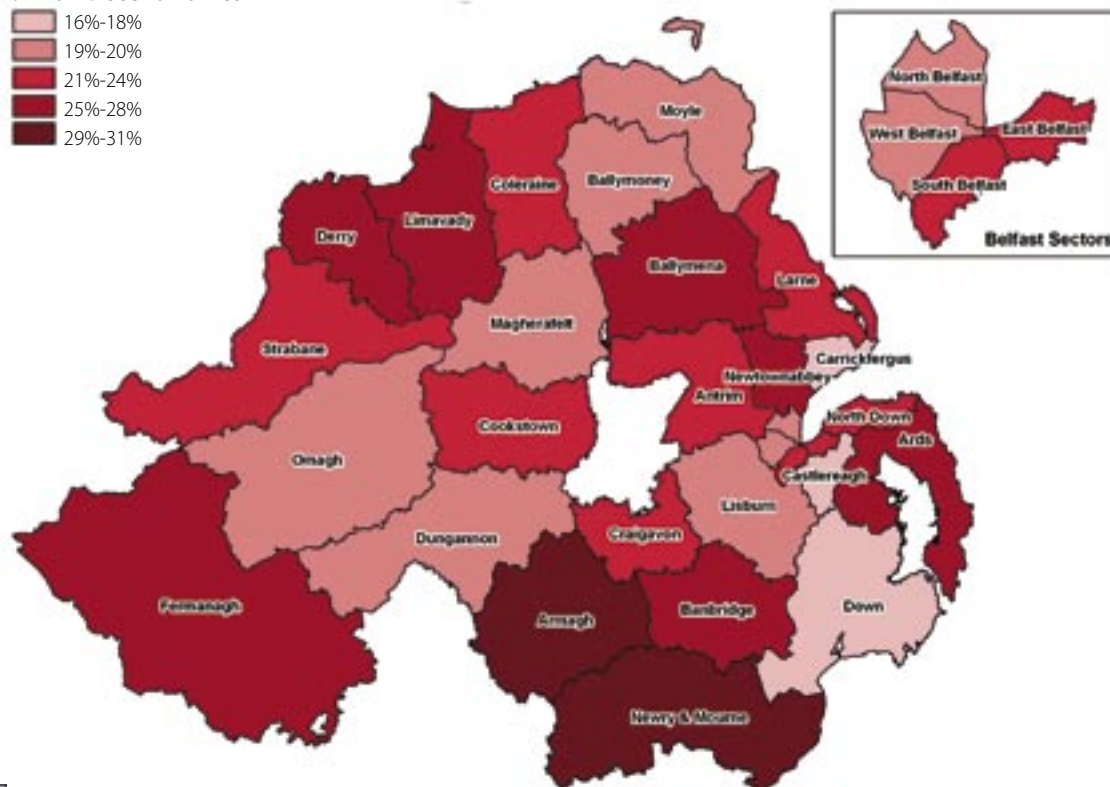
- Smaller proportions of each dwelling type failed on the basis of modern facilities and services but again detached houses had noticeably higher proportions (22%) that failed for this reason than other house types.

Decent Homes and Dwelling Location (Table A6.4)

Two-thirds (67%) of all non-decent dwellings were located in urban areas and the remainder (33%) in rural areas. This was broadly in line with the dwelling stock as a whole. Indeed, when the more detailed urban-rural classification is applied there are again only small deviations from the overall distribution of the stock. The Belfast Metropolitan Area had the lowest rates of non-decency (21%) District and Other Towns and small rural settlements both had non-decency rates of 23 per cent and the non-decency rate was highest in isolated rural areas (28%).

6.1 NON-DECENT HOMES BY DISTRICT COUNCIL AREA, 2006

% Non Decent Homes



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- In all locations a consistently high proportion of dwellings (79% to 89%) that failed the Decent Homes Standard did so, on the basis of the thermal comfort criterion.
- Much smaller proportions failed on the basis of the disrepair criterion; although in rural areas (25%) it was higher than in urban locations (17%). Indeed, in isolated rural areas this percentage was much higher (34%) than in the other four locations.
- Even lower proportions failed on the basis of modern facilities and services, although again the rate was considerably higher in isolated rural areas (23%) than for urban areas overall (14%).

Decent Homes and District Council Area (Table A6.5)
Analysis of the Decent Homes Standard by district council (see Map 6.1) shows that one-half of the council areas have non-decency rates that approximate to the Northern Ireland average of 23 per cent. However, there are a number of noteworthy deviations from this. Down and Carrickfergus Councils have the lowest rates of non-decency (16% and 17% respectively) and a number of other district councils have below average non-decency rates of between 17 and 20 per cent. Ballymena, Banbridge and Limavady all have above average non-decency rates of 27 to 28 per cent and Armagh and Newry and Mourne have the highest levels of non-decent dwellings (31%).

6.1.3 Decent Homes - Household Characteristics (Table A6.6)

A little more than one-fifth (140,600; 21%) of all occupied dwellings failed the Decent Homes Standard. The vast majority (85%) of these failed on the basis of the thermal comfort criterion, but only 14 per cent on the basis of disrepair, and only 12 per cent on the basis of modern facilities and services. These average figures varied by the age of the Household Reference Person, household type, employment status, annual income and household religion.

Age of Household Reference Person

Household Reference Persons over the age of 75 were much more likely to live in non-decent homes

than other age groups. Almost one-third (32%) of HRP aged 75 or more lived in non-decent dwellings. HRPs aged 17 to 24 and 25 to 39 (15 and 16% respectively) were least likely to live in a non-decent home. Other age groups were the same as the overall average of non-decency in occupied dwellings of 21 per cent.

There was little variation by age of the Household Reference Person from the overall average in relation to thermal comfort. A significantly higher percentage of dwellings occupied by a HRP aged at least 75 and 17 to 24 failed on the basis of disrepair (24% and 25% respectively compared to an average of 14%). Higher than average proportions of non-decent homes occupied by the elderly (75 or over) also failed the standard on the basis of modern facilities and services (28%).

Household Type

Lone older (30%) and lone adult (27%) households were more likely to live in non-decent homes than other household types. An estimated 54,100 elderly households lived in non-decent homes. Small families (13%) were less likely to live in dwellings that had failed this Standard. The overwhelming majority of dwellings failing the Decent Homes Standard in all household types did so on the basis of the thermal comfort criterion; varying from 78 per cent for two adults to 91 per cent for both lone adults and small families. The proportion of non-decent homes in disrepair also varied by household type from 18 per cent for two adults to nine per cent for large families. There was also considerable variation in relation to those dwellings failing on the basis of facilities and services: the lone older household type had the highest proportion (24%), two older persons had the next highest (17%), while small family households had the lowest proportion (1%).

Employment Status

More than one-quarter of Household Reference Persons who were unemployed (28%) and retired (26%) lived in non-decent homes. This was much higher than the overall average of 21 per cent for all occupied dwellings. Much lower percentages were recorded for those working part or full time.

Consistently high percentages of non-decent homes occupied by households in all employment status categories failed on the basis of the thermal comfort criterion; the unemployed and permanently sick or disabled categories recorded the highest proportions¹⁶.

There were some noteworthy differences in relation to the disrepair criterion of the Decent Homes Standard. Retired household reference persons were more likely to live in non-decent dwellings that failed the disrepair criterion (16%; overall average 14%). In addition retired household reference persons were much more likely to live in accommodation that had failed this standard on the basis of facilities and services (21%; average 12%).

Annual Income

The 2006 House Condition Survey showed that there was a clear relationship between annual income and the likelihood of living in a decent home. The lower the annual income the greater the likelihood of living in a non-decent home (see Figure 6.2).

FIGURE 6.2 NON-DECENT HOMES AND ANNUAL INCOME, 2006



Nearly one-third (30%) of households with an annual income of less than £7,000 lived in non-decent homes. This declined steadily to 16 per cent for those with an income of £30,000 or more. Indeed one-sixth of all occupied homes that are non-decent have households with an annual income of less than £7,000.

Consistently high percentages of non-decent homes occupied by households in all income brackets

failed on the basis of the thermal comfort criterion. However, in the case of thermal comfort the lowest proportion found was for those households where the annual income was below £7,000 (83%).

The relationship between income and the proportion of non-decent homes failing on the disrepair and the facilities and services criteria was much clearer. In both cases the households with the lowest (<£7,000) annual income recorded higher than average percentages of non-decency (repair 20%; average 14% and facilities and services 21%; average 12%).

Household Religion

Households describing themselves as Catholic (20%) were less likely to live in non-decent homes than those describing themselves as Protestant (23%). This variation is largely explained by differing age profiles (See Chapter 4) and the fact that a greater percentage of Catholic households lived in the newest (post 1980) dwellings.

High proportions of non-decent homes failed on the thermal comfort criterion for both Protestant (86%) and Catholic households (85%). Much smaller proportions failed on the basis of disrepair (Protestant 16% and Catholic 12%). Similar percentages failed on the basis of facilities and services (13% Protestant and 12% Catholic households).

6.1.4 Decent Homes - Summary

There has been a significant decrease in the number of dwellings failing the Decent Homes Standard. Since 2001 the number of dwellings failing this Standard has decreased from one-third to less than one-quarter (a drop of nine percentage points and some 44,000 dwellings). Particularly significant is the fall in the non-decency rate for Housing Executive dwellings from 50 per cent to 25 per cent.

6.2.0 Fuel Poverty - Introduction

One of the key objectives of the 2006 Northern Ireland House Condition Survey (HCS) was to provide a reliable assessment of Fuel Poverty in Northern Ireland on a comparable basis, with the rest of the United Kingdom.

The definition of a fuel poor household is one needing to spend in excess of 10 per cent of its household income on all fuel use to achieve a satisfactory standard of warmth (21°C in the main living area and 18°C in other occupied rooms). Fuel Poverty assesses the ability to meet all domestic energy costs including space and water heating, cooking, lights and appliances.

Figures for Fuel Poverty are derived from a model constructed by the Building Research Establishment (BRE) in Watford. The Fuel Poverty model calculates a fuel poverty ratio for each dwelling. The calculation has three components energy prices, fuel consumption and income. For further detail see Appendix F.

All of the component models, with the exception of the fuel price model, use data from the 2006 Northern Ireland House Condition Survey. However, the fuel price model uses the Methods of Payment (MOP) data from the HCS.

6.2.1 Changes to the Fuel Poverty model 2001 - 2006

One of the features of statistical models is that the methodology employed is subject to revision as more and better information becomes available or when social norms change. The Fuel Poverty model is no exception and has been developed over time. It was therefore important to ensure that previous data for 2001 was reworked.

The 2006 estimate of Fuel Poverty was derived in the same way as had been done for 2004 and 2001 but with the inclusion of any updates to the BRE Fuel Poverty method that had occurred during this time.

The main update was the inclusion of revised factors for heat loss via thermal bridging. These were introduced in the latest version of SAP (SAP05), and reflect more accurately the process of heat loss. SAP applies factors based on the type or age of the dwelling with modern dwellings performing better in this respect.

Also, in order to fulfil one of the HCS stated objectives as outlined above, the statistic was calculated using a method more closely aligned

with the English model. The main differences being a 20 per cent increase in hot water usage to reflect updated or more accurate information on the way households consume hot water and the inclusion of rates and rates rebate in the income calculation.

Table 6.4 summarises the difference in Fuel Poverty estimates using the old and new revised models.

TABLE 6.4 FUEL POVERTY ESTIMATES COMPARING 2001 AND 2006 METHODOLOGIES

Households in Fuel Poverty	2001 ¹⁷	2004	2006
2001 Method	33% 203,000	24% 154,000	36% 239,000
New 2006 Method	27% 167,000	23% 146,000	34% 226,000

6.2.2 Profile of Fuel Poverty

The 2006 House Condition Survey estimated that approximately 225,600 (34%) households in Northern Ireland were in Fuel Poverty. The figure for England in 2005 was 7.2 per cent. Using the same methodology as in 2006, the House Condition Survey estimated that in Northern Ireland in 2004 there were 146,000 (23%) households in Fuel Poverty and 167,000 (27%) households in Fuel Poverty in 2001. Since 2004 there has therefore been a considerable increase in the number of fuel poor households (80,000) in Northern Ireland.

6.2.3 Key determinants of Fuel Poverty

At the beginning of 2008 the Housing Executive commissioned BRE to complete additional research. The aim of the research was to provide an estimate of the relative importance of the key determinants of Fuel Poverty (fuel prices, incomes and energy efficiency improvements) in determining the significant rise in Fuel Poverty in Northern Ireland between 2001 and 2006.

Using the most up to date method and one comparable to England, the proportion of households in Fuel Poverty in 2001 was 27.3 per cent. This figure rose by 6.9 percentage points to 34.2 per cent in 2006 as the result of a combination of the three countervailing forces set out below:

¹⁷ The reason for a greater difference in figures in 2001 between the old and new methodology is related in part to the fact that the 2001 published figure used a significantly different income methodology to the 2004 & 2006 models. The later models accounted for additional household adults and the amount of rates paid.

- Fuel Price increase (+5.6) equates to+38.7 percentage points
- Increase in incomes (-1.78) equates to ...-12.3 percentage points
- Energy consumption (-2.81) equates to ..-19.4 percentage points

Total effect +6.9 percentage points.

The effects of these relative forces can be expressed in a more meaningful way by examining their individual impact in succession on the proportion in Fuel Poverty.

1. If only the increase in the price of fuel had taken place and there had been no changes in the other two factors the percentage in Fuel Poverty would have been 66 per cent.
2. If then the effects of rising incomes are taken into effect as well as the fuel price this would have reduced the proportion of households in fuel poverty to 53.7 per cent.
3. Finally, if in addition the effect of improved energy efficiency is taken into account this reduces the proportion to the headline rate of 34.2 per cent for 2006.

6.2.4 Fuel Poverty by key dwelling characteristics

The following analysis is based on the new 2006 Fuel Poverty methodology and comparisons are made with the updated 2001 figures.

Fuel Poverty and Dwelling Tenure (Table A6.7)

The rate of Fuel Poverty varied considerably by tenure. However patterns remained the same 2001 to 2006.

- The tenure with the highest proportion in Fuel Poverty in 2006 was the private rented sector (35,300; 44%). This was similar to 2001 when the proportion was also 44 per cent.
- This was closely followed by Housing Executive households, (41%; 37,800). Again, this was similar to 2001 (40%). There has been considerable progress made in introducing new, more efficient heating systems¹⁸ in Housing Executive

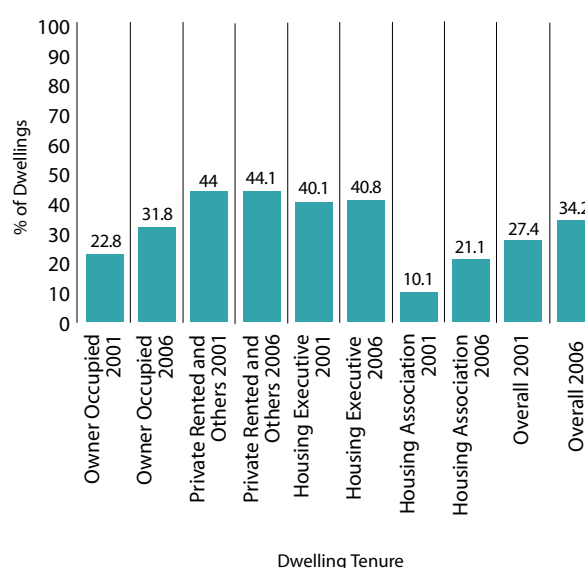
accommodation and the absolute numbers of households in Fuel Poverty show a small decline 2001 to 2006 (8,200 households). However, a combination of fuel price increases and the increasing residualisation of the stock, reflected in the number of households on low incomes, have reduced the impact of these energy efficiency improvements.

- In the owner occupied sector 32 per cent (148,000 households) were in Fuel Poverty in 2006. This compares with 23 per cent in 2001 (97,900 households). This equates to approximately 50,000 additional owner occupied households in Fuel Poverty in 2006.
- The lowest rate of Fuel Poverty was found in housing association households (4,500 households; 21%) reflecting the much newer stock (In 2001 the figures were 1750; 10%).

It is important to note that two-thirds (66%) of all households that were fuel poor lived in owner occupied dwellings. The proportion in 2001 was 59 per cent.

Figure 6.3 summarizes the increase in Fuel Poverty by tenure over time.

FIGURE 6.3 HOUSEHOLDS IN FUEL POVERTY AND TENURE, 2001-2006



Fuel Poverty and Dwelling Type (Table A6.8)

There were smaller differences in the rates of Fuel Poverty when analysed by dwelling type. The rates of Fuel Poverty were highest in households living in single storey (38%) and terraced houses (36%) properties and lowest for households in semi-detached (31%) houses and flats/apartments (31%). This was similar to the pattern in 2001.

Fuel Poverty and Dwelling Age (Table A6.9)

As with unfitness and the Decent Homes Standard, there was an association between dwelling age and Fuel Poverty. Households living in older dwellings had higher rates of Fuel Poverty. This is consistent with 2001 findings.

- More than one-half (54%) of households living in dwellings built before 1919 were fuel poor. The figure for 2001 was 44 per cent.

- The rate of Fuel Poverty was slightly less for households living in dwellings built between 1919 and 1944 (41%; 2001 40%).
- However, the rate of Fuel Poverty for households living in new post 1980 stock was only 21 per cent (up from 12 per cent in 2001).

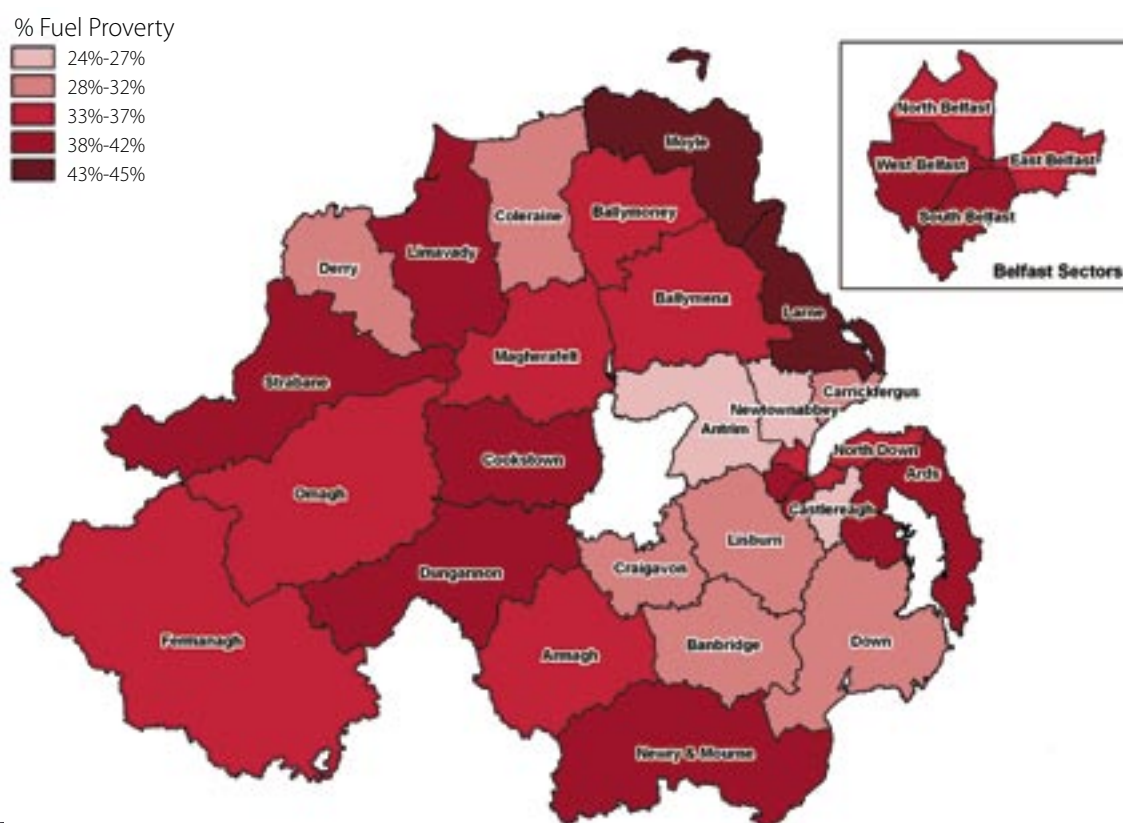
Of all households living in Fuel Poverty approximately 23 per cent lived in dwellings constructed prior to 1919.

Fuel Poverty and Dwelling Location (Table A6.10-A6.11)

In 2006, there was some evidence of an urban/rural dichotomy in relation to fuel poor households, with rates at 33 per cent and 38 per cent (respectively). The highest rate of Fuel Poverty was found in households living in isolated rural areas (43%).

Map 6.2 confirms the higher rates of Fuel Poverty in more peripheral rural areas.

MAP 6.2 FUEL POVERTY BY DISTRICT COUNCIL AREA, 2006



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Table 6.5 shows the rates of Fuel Poverty by district council area. The highest rate of Fuel Poverty was found in Moyle (45%), followed by Larne (43%), West Belfast (42%), Cookstown (41%), South Belfast (41%), Strabane (41%) and Ards (40%). The lowest rates were found in Antrim (23%), Newtownabbey (26%) and Castlereagh (27%).

TABLE 6.5 HOUSEHOLDS IN FUEL POVERTY AND DISTRICT COUNCIL AREA, 2001 - 2006

	In Fuel Poverty 2001 % (Revised figures)	In Fuel Poverty 2006 %
Antrim	34.6	23.6
Ards	22.0	39.5
Armagh	23.4	37.1
Ballymena	32.9	34.8
Ballymoney	37.7	35.2
Banbridge	26.6	31.1
Belfast	26.8	38.5
Carrickfergus	23.9	30.7
Castlereagh	18.7	27.4
Coleraine	28.4	30.7
Cookstown	29.2	41.2
Craigavon	38.6	31.9
Derry	26.3	30.0
Down	24.2	30.5
Dungannon	19.6	38.7
Fermanagh	29.3	36.3
Larne	26.9	43.1
Limavady	34.0	39.9
Lisburn	26.6	29.4
Magherafelt	37.4	34.2
Moyle	33.0	45.3
Newry & Mourne	24.8	39.2
Newtownabbey	28.1	26.3
North Down	19.2	33.6
Omagh	31.5	33.9
Strabane	36.9	40.7
Total	27.3	34.2

Fuel Poverty and Fuel Source

There was considerable variation in the rate of Fuel Poverty by fuel used for heating. Households with solid fuel (59%) or dual (75%) central heating were more likely to be in Fuel Poverty than households with oil (27%) or mains gas (46%) central heating. The number of households with gas central heating in fuel poverty is above the average (46% compared to the average of 34%), reflecting the relatively high proportion of social tenants with this type of heating. The comparative figure for 2001 was 18 per cent. This shows that even if the dwelling has an efficient heating system it does not mean that the household will automatically be brought out of Fuel Poverty. The mean income for households in dwellings with gas central heating was approximately £10, 500. This combined with the higher fuel prices increased the proportion of households in dwellings heated by gas in Fuel Poverty.

Fuel Poverty and Cavity Wall Insulation

Households living in dwellings with full cavity wall insulation (28%) were less likely to be in Fuel Poverty than households living in dwellings with partial (43%) or without any type of wall insulation (46%). Households living in dwellings with dry lining or external (49%) insulation had the highest rate of Fuel Poverty.

Fuel Poverty and Loft Insulation

Households with loft insulation (33%) were less likely to be in Fuel Poverty than households with no loft insulation (64%). This is consistent with 2001 figures.

6.2.5 Fuel Poverty by key household characteristics (Table A6.12)

Fuel Poverty and Age of Household Reference Person

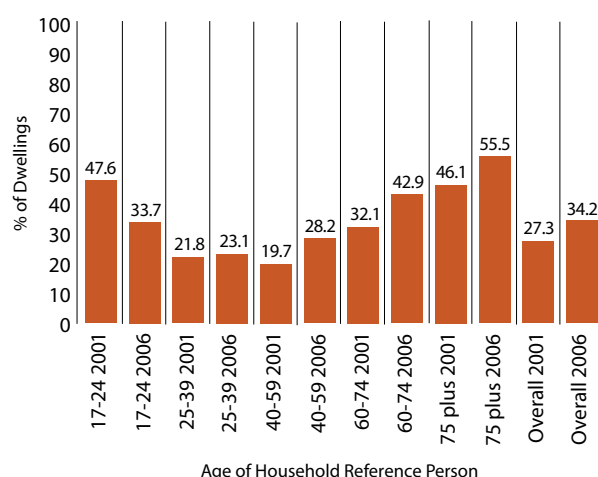
In 2006 households headed by older people were much more likely to be living in Fuel Poverty. This is consistent with 2001 findings.

- Household reference persons aged between 60 and 74 (43%) and 75 plus (56%) were more likely to be living in Fuel Poverty, compared to only 23 per cent of reference persons aged between 25

and 39 and 28 per cent of those aged between 40 and 59.

- In 2001, the proportions of older households in Fuel Poverty were 32 per cent (60-74) and 46 per cent (75 plus). Both age groups show an increase of around 10 percentage points each since 2001.
- Half (51%) of all households that were fuel poor were headed by household reference persons aged 60 or more, up from 49 per cent in 2001.

FIGURE 6.4 HOUSEHOLDS IN FUEL POVERTY AND AGE OF HRP, 2001-2006



Fuel Poverty and Household type

The rate of Fuel Poverty varied by household type and was consistent with findings by age.

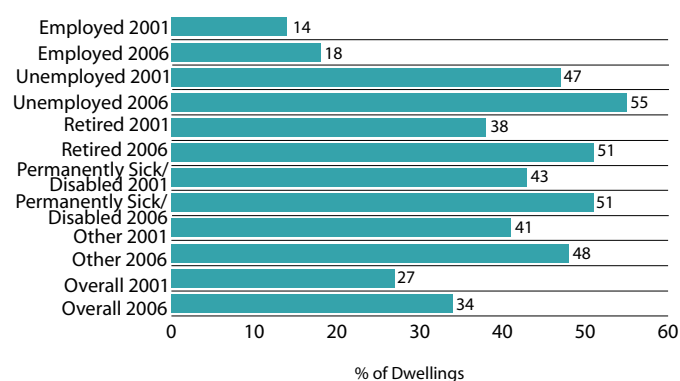
- A very high proportion of lone older (62%) households were in Fuel Poverty. This was an increase of 10 percentage points since 2001.
- Almost one-half (48%; 49% in 2001) of lone parent households were in Fuel Poverty, followed by 46 per cent (42%; 2001) of lone person households.
- Large adult (13%) and two person (20%) households were least likely to be in Fuel Poverty. In 2001 large adult (6%) and large (13%) and small family (16%) households were least likely to be in Fuel Poverty.

Fuel Poverty and Employment of Household Reference Person

There was considerable variation in Fuel Poverty by employment status.

- More than one-half (55%; 47% in 2001) of households headed by a person categorized as unemployed were living in Fuel Poverty in 2006.
- Around one-half of households with permanently sick or disabled (51%), retired (51%) or 'other' (48%) reference persons were living in Fuel Poverty.
- The lowest rate of Fuel Poverty was found in households headed by employed persons (only 18%; 14% in 2001).
- Households with retired HRPs showed a considerable increase of 13 percentage points since 2001 (from 38% to 51%).

FIGURE 6.5 HOUSEHOLDS IN FUEL POVERTY AND EMPLOYMENT STATUS OF HRP, 2001-2006



Fuel Poverty and Income

Table 6.6 shows the clear relationship between income and Fuel Poverty. Low income households were much more likely to be living in Fuel Poverty, supporting the hypothesis that the most important underlying cause of Fuel Poverty is a low income. Patterns were consistent with 2001 findings.

- In 2006, 75 per cent of households with an annual income of less than £7,000 per annum were in Fuel Poverty, this compares with 68 per cent in 2001.

- As income increased, the proportion of households in Fuel Poverty declined. The rate of Fuel Poverty for households with an annual income of between £15,000 and £19,999 was 26 per cent and only three per cent for those with an annual income of £30,000 or more.
- Households with annual incomes between £10,000 and £14,999 show the largest percentage point increase since 2001 (22 percentage points; from 19% to 41%).

TABLE 6.6 FUEL POVERTY AND ANNUAL (GROSS) HOUSEHOLD INCOME, 2001-2006

Annual Household Income	Percentage in Fuel Poverty 2006	Percentage in Fuel Poverty 2001
Less than £7,000	75%	68%
£7,000 and £9,999	59%	46%
£10,000 and £14,000	41%	19%
£15,000 and £19,999	26%	11%
£20,000 and £29,999	8%	3%
£30,000 or more	3%	Less than 1%
Overall Rate	34%	27%

- Consideration of all households in Fuel Poverty shows that 85 per cent had an annual household income of £14,999 or less.

Fuel Poverty and Religion

There was little variation in the rate of Fuel Poverty by the two main religious groups. More than one-third of households designated as Protestant (36%) and Catholic (35%) were in Fuel Poverty. The equivalent figures in 2001 were 31 per cent and 24 per cent.

6.2.6 Fuel Poverty - Summary

Analysis of households in Fuel Poverty in 2006 shows that:

- Considerable progress had been made in reducing Fuel Poverty in Northern Ireland between 2001 and 2004 (from 27% to 23%) but by 2006 the rate of Fuel Poverty had increased to 34 per cent, largely as a result of the very significant increases in the price of fuel.

- However, low income has also been shown to be a very significant cause of Fuel Poverty in Northern Ireland in 2006 (75% of households with an annual income of less than £7,000 were in Fuel Poverty). Indeed, 85 per cent of all households in Fuel Poverty had incomes of £14,999 per annum or less.
- However, on the basis of these general factors the HCS indicates that Fuel Poverty was correlated to a number of other factors:
 - More than one-half (54%) of households living in older dwellings (pre 1919) were in Fuel Poverty;
 - Also almost one-half (43%) of households living in isolated rural areas were in Fuel Poverty;
 - More than one-half (56%) of households headed by an older person (75 plus) were in Fuel Poverty in 2006. More than three-fifths (62%) of lone older households were fuel poor.
 - Fuel Poverty was higher in households with HRPs who were unemployed (55%), permanently sick or disabled (51%) or retired (51%).

The 2006 HCS therefore confirms that even if the dwelling is given an efficient heating system and is insulated to the highest standards it does not mean that the household will automatically be brought out of Fuel Poverty. The cost of fuel and low income will remain important determinants of whether a household is still in Fuel Poverty.

6.3.0 Housing Health and Safety Rating System (HHSRS) Version 2

6.3.1 Background

The Housing Health and Safety Rating System (HHSRS) represents a very different approach to housing standards. It is a risk based system that identifies defects in dwellings and evaluates the potential effect of any defects or deficiencies on the health and safety of occupants, visitors, neighbours or passers-by. The System generates a score which represents the seriousness of any hazard. Any hazards that have a score of over 1,000 are described

as 'Category 1' and are deemed to fail the statutory minimum standard.

The government commissioned Warwick University and the Building Research Establishment (BRE) to develop the Rating System, as a replacement for the Fitness Standard. The first version was released in July 2000. Following a consultation process, the underlying statistics were revised and version 2 of the HHSRS was released, with full guidance, in November 2004 and introduced in England in April 2006.

6.3.2 The HHSRS and the House Condition Survey

Version 1 of the HHSRS was adapted for inclusion in the 2001 English and Northern Ireland House Condition Surveys. This allowed the Housing Executive to assess the new measure and, in addition, to compare the results with the English HCS. This 2001 exercise was seen very much as a pilot as the System was very unfamiliar to surveyors at the time. Also, the change in statistics in Version 2 led, in particular, to modifications in the way excess cold was modelled. Previously, only dwellings with a SAP of less than five were included. However, research suggested that this should be less than 35 (31.49 on SAP05). For these reasons, the results from the 2001 pilot cannot be compared with those from the 2006 Survey and so are not reported here.

See Appendix G for more details on how the HCS collects and models information on the HHSRS.

TABLE 6.7 NUMBER OF HHSRS RISKS FAILED BY DWELLING, 2006

Number of risks failed by dwelling	No of dwellings	% of total stock
0	567,880	81
1 only	107,080	15
2	19,830	3
3	5,190	1
4	2,100	Less than 1
5	2,040	Less than 1
6	520	Less than 1
7	190	Less than 1
8	140	Less than 1
Total	705,000	100

6.3.3 HHSRS Risks assessed in the 2006 HCS

Table 6.8 shows the different HHSRS risks assessed as part of the HCS and the proportions failing by risk. It is important to note that small numbers should be treated with caution. The most common risks in Northern Ireland in 2006 were excess cold and falls on the stairs. The most common risks in England in 2005/6 were also excess cold and falls on the stairs.

TABLE 6.8 PROPORTIONS OF DWELLINGS WHICH FAILED THE HHSRS BY RISK, 2006

	% of total stock
Falls on the stairs	5.2
Falls on the level	1.6
Falls between levels	1.6
Fire	0.7
Hot surfaces	0.2
Excess Cold	11.8
Dampness	1.5
Carbon Monoxide	0
Electrical problems	1.0
Radon	0.7
Noise	0
Lead	1.7
Pests	0.3
Sanitation	0.1
Overcrowding	0
Any Category 1 hazard¹⁹	19.4

6.3.4 HHSRS in Northern Ireland in 2006

Overall 19 per cent of dwellings in Northern Ireland were considered to have Category 1 risks in 2006. This equates to approximately 137,100 dwellings. The equivalent figure for England in 2006 was 22 per cent.

6.3.5 HHSRS by key dwelling characteristics

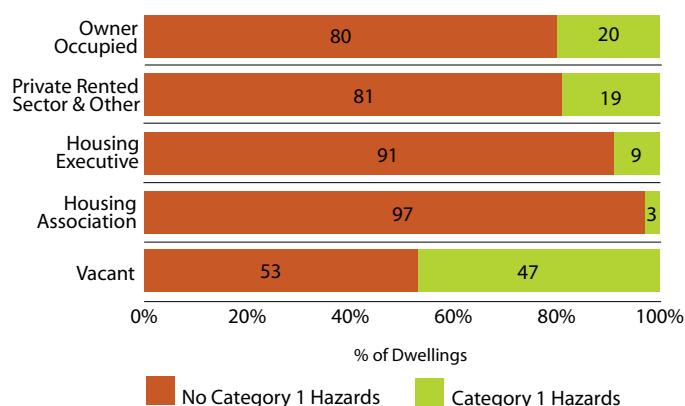
HHSRS and Dwelling Tenure (Table A6.13)

There was some variation by tenure in relation to dwellings failing the HHSRS standard. Not surprisingly, vacant dwellings were more likely to have Category 1 hazards (47%) than any other tenure.

¹⁹ Note that the individual hazards do not add up to the total because some dwellings have more than one Category 1 hazard.

Around one-fifth of owner occupied (20%) and private rented dwellings (19%) had Category 1 hazards. Only nine per cent of Housing Executive and three per cent of Housing Association dwellings had Category 1 hazards.

FIGURE 6.6 CATEGORY 1 HAZARDS AND DWELLING TENURE, 2006



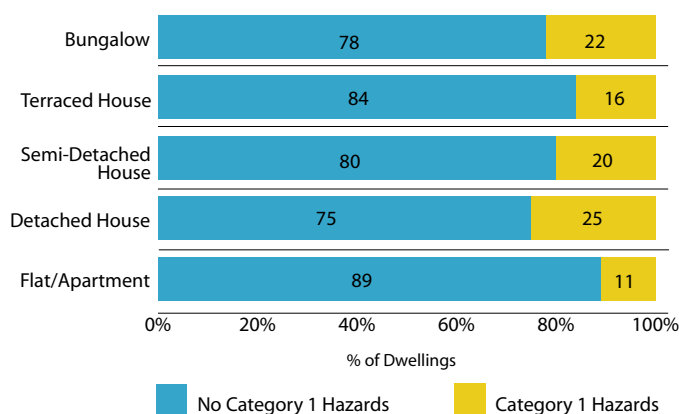
HHSRS and Dwelling Age (Table A6.14)

Older dwellings were more likely to fail the HHSRS than newer dwellings. More than two-fifths (42%) of dwellings constructed before 1919 and 29 per cent of dwellings constructed between 1919 and 1944 had Category 1 hazards; compared to 14 per cent of those constructed between 1965 and 1980 and nine per cent of those built after 1980.

HHSRS and Dwelling Type (Table A6.15)

One-quarter (25%) of detached houses had Category 1 hazards. Bungalows (22%) and semi-detached (20%) housing had similar proportions of Category 1 hazards. Only 11 per cent of flats had Category 1 hazards.

FIGURE 6.7 CATEGORY 1 HAZARDS AND DWELLING TYPE, 2006



HHSRS and Location (Table A6.16)

Dwellings in rural areas (26%) were more likely to fail the HHSRS than dwellings in urban areas (17%). Dwellings in isolated rural areas (32%) had the highest proportion of Category 1 hazards.

HHSRS and District Council Area (Table A6.17)

The following table compares the proportion of the housing stock failing the HHSRS in 2006 by District Council Area. High proportions of dwellings in Limavady, Derry, Magherafelt and Ballymena had Category 1 hazards compared to low proportions in Antrim, Carrickfergus and Newtownabbey. The table also provides the proportion of unfit housing in each District Council Area in 2006.

TABLE 6.9 CATEGORY 1 HAZARDS BY DISTRICT COUNCIL AREA, 2006

	Category 1 Hazards %	Unfit Dwellings %
Antrim	11.3	1.5
Ards	18.8	1.2
Armagh	19.1	4.5
Ballymena	28.0	3.0
Ballymoney	17.1	5.5
Banbridge	24.3	3.3
Belfast	15.3	5.3
Carrickfergus	12.2	3.9
Castlereagh	13.8	1.7
Coleraine	23.7	1.0
Cookstown	26.0	4.3
Craigavon	15.4	3.3
Derry	30.2	2.6
Down	16.7	2.7
Dungannon	16.6	4.6
Fermanagh	27.1	7.4
Larne	27.1	2.9
Limavady	31.5	2.8
Lisburn	14.8	0.5
Magherafelt	29.1	4.7
Moyle	19.8	6.5
Newry & Mourne	24.3	5.3
Newtownabbey	13.0	2.3
North Down	15.7	0.8
Omagh	26.3	4.9
Strabane	22.3	3.2
Total	19.4	3.4

HHSRS and Unfit Stock

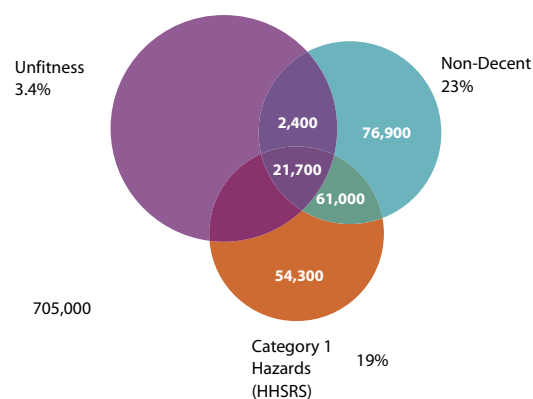
Analysis of all properties that had Category 1 hazards shows that 16 per cent were unfit and 84 per cent were fit. Conversely, nine out of ten (90%) unfit dwellings in Northern Ireland in 2006 had Category 1 hazards compared with only 17 per cent of the fit stock.

HHSRS and the Decent Homes Standard

Three-fifths (60%) of all properties that had Category 1 hazards also failed the Decent Homes Standard. Conversely, more than one-half (51%) of dwellings which failed the Decent Home Standard also failed the HHSRS compared with only 10 per cent of dwellings passing the Decent Homes Standard.

Overall, approximately 22,000 dwellings failed all three measures (HHSRS, Decent Homes and the Fitness Standard). Analysis of these dwellings show that 60 per cent were vacant, 67 per cent were pre-1919 (indeed 82 per cent were built in 1944 or earlier), and 51 per cent were in urban areas. Of those that were occupied, most were lived in by older single people.

FIGURE 6.8 STOCK PROFILE OF UNFITNESS, NON-DECENT HOMES AND CATEGORY 1 HAZARDS



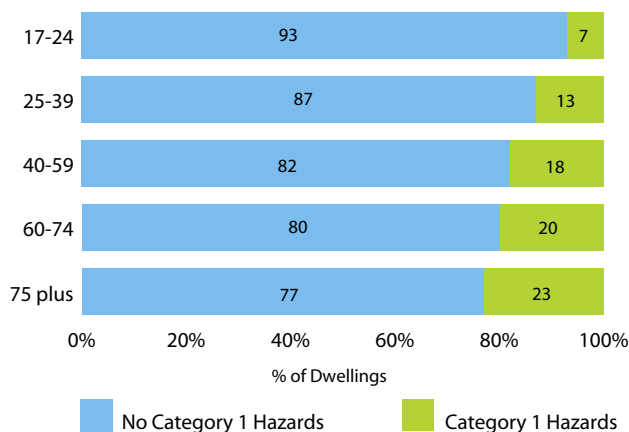
6.3.6 HHSRS and key household characteristics (Table A6.18)

Overall, 18 per cent of occupied properties had Category 1 hazards.

Age of Household Reference Person

Figure 6.9 shows that as the age of the HRP increased so did the likelihood of failing the HHSRS. Dwellings with HRPs aged 75 or more had the highest rate of Category 1 hazards (23%).

FIGURE 6.9 CATEGORY 1 HAZARDS AND AGE OF HRP, 2006



Household Type

The following table shows that there was little variation by household type, with most having rates similar to the overall rate failing the HHSRS. Lone parent (10%) and small family (14%) households were least likely to have Category 1 hazards.

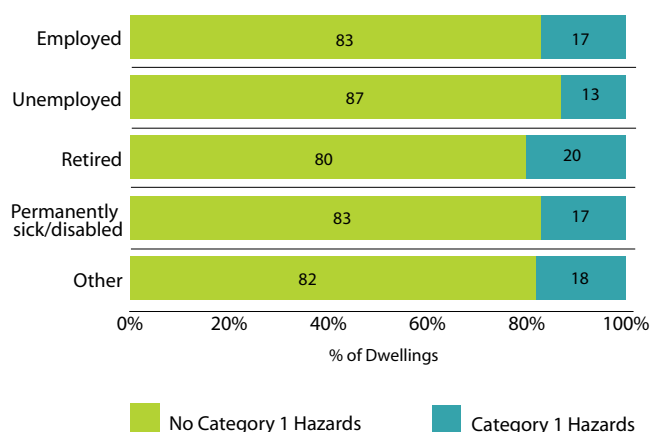
TABLE 6.10 CATEGORY 1 HAZARDS AND HOUSEHOLD TYPE, 2006

Household Type	Category 1 Hazards (%)
Lone Older	21
Two older	21
Large adult	20
Large family	18
Lone adult	17
Two adults	16
Small family	14
Lone Parent	10
Overall	18

Employment Status of Household Reference Person

Figure 6.10 shows there was little variation by employment group. Households with unemployed HRPs were least likely to fail the HHSRS, reflecting the higher rates of this group in Housing Executive properties which were less likely to have Category 1 hazards.

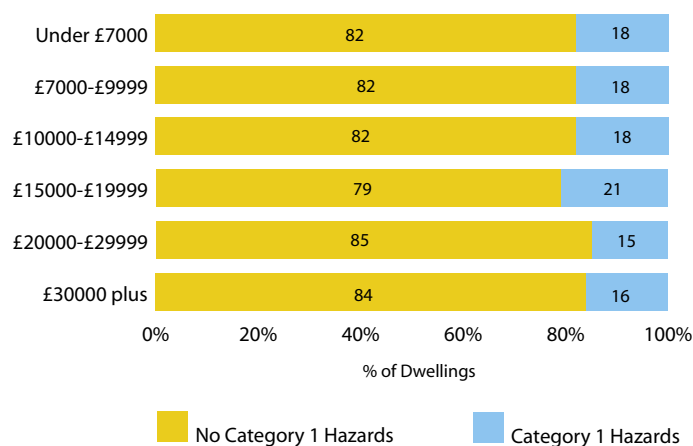
FIGURE 6.10 CATEGORY 1 HAZARDS AND EMPLOYMENT STATUS OF HRP, 2006



Household Income

Again, there was little variation by income groups. Lower income groups tended to live in social dwellings which were less likely to have Category 1 hazards.

FIGURE 6.11 CATEGORY 1 HAZARDS AND ANNUAL (GROSS) HOUSEHOLD INCOME, 2006



Household Religion

Households failing the HHSRS showed little variation by religion. Dwellings occupied by 17 per cent of Catholic and 18 per cent of Protestant households had Category 1 hazards.

6.3.7 Summary and Conclusion

Overall, 19 per cent of all dwellings in Northern Ireland had Category 1 hazards in 2006. Common

hazards in dwellings in Northern Ireland were excess cold and falls on stairs. The EHCS showed that these hazards were also the most common in England in 2005/6.

The types of dwellings most likely to have Category 1 hazards were:

- vacant properties (47%) followed by owner occupied (20%) and private rented dwellings (19%);
- older dwellings built before 1919 (42%) and between 1919 and 1944 (29%).

Nine out of ten (90%) unfit dwellings in Northern Ireland in 2006 failed the HHSRS and 51 per cent of dwellings which failed the Decent Homes Standard also failed HHSRS.

Overall, 18 per cent of occupied dwellings had Category 1 hazards. Older HRP's (23%; 75 plus) were slightly more likely to live in dwellings with Category 1 hazards. There was little variation across other key social groups.

This section has provided a baseline for the Northern Ireland dwelling stock in terms of the HHSRS, which allows comparisons with England. In England already, it has replaced unfitness as the first element of the Decent Homes Standard. In Northern Ireland the HHSRS has not yet been accepted as an enforceable standard. The Department of Social Development is currently reviewing this position and whether it should be included in the Northern Ireland Decent Homes Standard.

It is likely that in the Northern Ireland HCS both the HHSRS and the current Fitness Standard will run in tandem for the foreseeable future.

TABLE 7.1 CENTRAL HEATING - KEY FIGURES, 2006

[illegible]

7.1 Introduction

The Housing Executive is Northern Ireland's Home Energy Conservation Authority. Its primary objective in this role is to improve energy efficiency, measured in terms of a reduction in the fuel consumption of dwellings existing prior to 1 April 1996 by 34 per cent. While no deadline was set for this to be achieved, it was expected that there should be substantial progress by 2006.

The 2006 House Condition Survey is the primary data source for assessing progress towards this key strategic goal in Northern Ireland.

The energy efficiency of a dwelling is determined primarily by the type of fuel and the type of heating. Other factors such as insulation and double-glazing are also important. This chapter examines these key energy-related features by tenure, age, dwelling type and household characteristics of the occupants and highlights the main changes since 2001. It also sets out the key 2001-2006 comparisons in terms of energy efficiency measures.

7.2 Central Heating

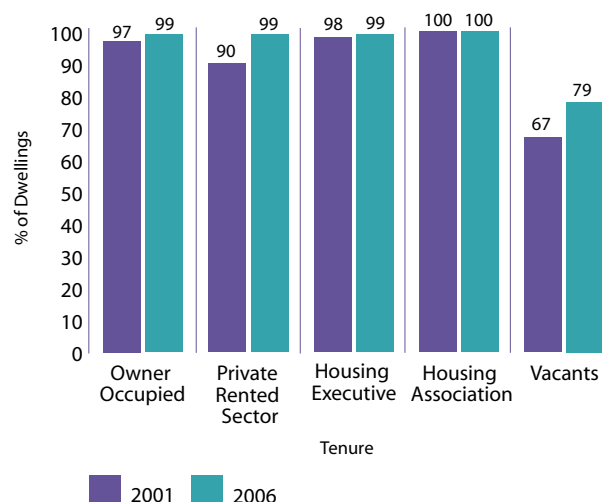
Central heating is traditionally seen as a key indicator of the standard of housing. The 2006 House Condition Survey defines "central heating" as a heating system with a distribution system sufficient to provide heat in at least two rooms. In addition, in dwellings where there was no boiler, but there was a heating system with some means of controlling temperature and timing, (for example, electric storage heaters) and at least two rooms were heated, this system was counted as central heating. This approach is consistent with the previous four House Condition Surveys.

Overall, the proportion of dwellings in Northern Ireland with central heating is high. In 2001, a total of 615,400 (95%) dwellings were recorded as having central heating. In 2004, this had risen to 661,700 (97%) and by 2006 to 692,200 (98%); indicating steady improvement in the heating standard of dwellings in Northern Ireland.

The energy efficiency of a dwelling is determined primarily by the type of fuel and the type of heating. Other factors such as insulation and double-glazing are also important

Overall 12,800 properties in Northern Ireland in 2006 did not have central heating, although two-thirds (67%; 8,600) of these were vacant properties. This is a considerable improvement since 2001 when approximately 32,200 dwellings did not have central heating.

FIGURE 7.1 CENTRAL HEATING AND TENURE, 2001-2006



Central Heating - Tenure (Table A7.1)

Figure 7.1 shows that by 2006 the proportions of centrally heated dwellings in the four occupied tenures had all increased to at least 99 per cent.

- As in 2001, all housing association dwellings have central heating.
- Almost all owner occupied, private rented sector and Housing Executive dwellings had central heating in 2006 (99%).
- The private rented sector showed the biggest improvement since 2001 (from 90% to 99%) reflecting the increasing number of newer dwellings in this sector (See Chapter 3).
- Only 79 per cent of vacant dwellings had central heating, although again this represented a considerable improvement since 2001 when the comparable figure was 67 per cent.

Central Heating - Age of dwelling (Table A7.2)

The 2006 House Condition Survey confirmed the clear association between dwelling age and central heating. Newer dwellings were more likely to have central heating, indeed almost all dwellings built after 1945 had central heating. (Houses built after 1980 recorded as having no central heating are either still in the process of construction or refurbishment). The proportion of dwellings built between 1919 and 1944 that had central heating was 99 per cent. This compares with only 93 per cent for those dwellings built before 1919.

Overall, two-thirds (66%) of all dwellings with no central heating had been built before 1919.

Central Heating -- Dwelling Type (Table A7.3)

There was little variation by dwelling type, although the proportion of flats/apartments with no central heating was significantly higher (6%) then for other dwelling types.

Central Heating - Dwelling Location (Table A7.4)

High proportions of both urban dwellings (99%) and rural dwellings (97%) have central heating. More than one-third (37%) of all dwellings with no central heating were found in isolated rural areas and more than two-fifths (42%) in the BMA.

Central Heating - Household Characteristics (Table A7.5)

This section examines central heating by key household variables. Overall, 99 per cent of occupied dwellings had central heating.

Age of Household Reference Person

Overall, the proportion of dwellings with central heating varied little by age of household reference person. However, the rate of non-centrally heated dwellings was highest for households headed by a person aged more than 75 years of age (98.5%) and 60 per cent of all occupied dwellings with no central heating were headed by people aged 60 or more. The comparative figure for 2001 was 63 per cent.

Household Type

There was little variation from the overall average by household type.

Employment Status

Analysis of all occupied dwellings without central heating shows that more than one-third (35%) were headed by retired people. The comparative figure for 2001 was 50 per cent.

Annual Income

Although overall numbers were small, there was some association between low income and no central heating. One-third (32%) of households with no central heating had an annual income of less than £7,000 per annum (although only 12 per cent of households had an income of less than £7,000).

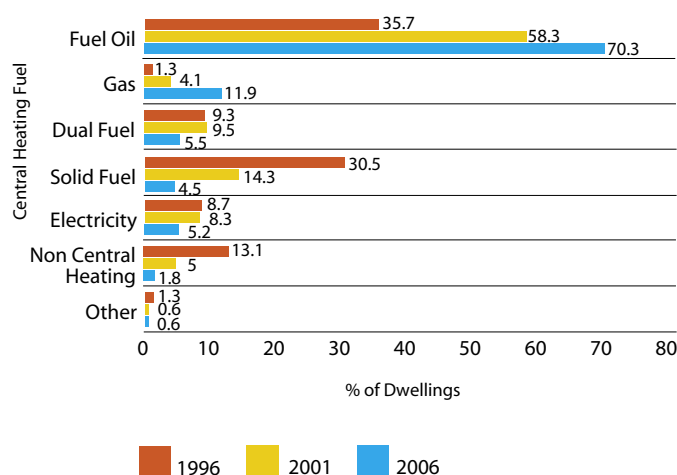
Household Religion

Analysis of occupied homes without central heating shows that 55 per cent were Protestant households and 39 per cent were Catholic households.

7.3 Fuel Sources and Heating Systems

The type of fuel used for heating is a key determinant of the energy efficiency of a dwelling. Figure 7.2 shows that the fuel used for heating homes in Northern Ireland is continuing to change over time.

FIGURE 7.2 THE CHANGING PROFILE CENTRAL HEATING FUEL, 1996-2006



The 2006 House Condition Survey confirms a number of key trends in domestic central heating including:

- Oil is increasingly the preferred fuel for domestic heating in Northern Ireland. More than two-thirds (495,600; 70%) of all dwellings had oil central heating systems in 2006. This compares to 58 per cent (377,800) in 2001 and 36 per cent in 1996. If dual fuel systems are included, which have in the majority of cases oil as the primary fuel, the figure rises to 76 per cent (68% in 2001).
- The rapid decline in the use of solid fuel for central heating. In 2006, only five per cent of all dwellings used solid fuel and equates to approximately 32,900 properties. This is a considerable reduction from 14 per cent in 2001 (92,300 properties).
- The declining use of electricity for central heating continues. In 2006 approximately 36,900 (5%) properties had electric central heating systems. The comparative figures for 2001 were 54,000 (8%).
- The increasing use of gas for central heating. In 2001 approximately 20,000 dwellings (3%) were heated by mains gas; by 2006 this had more than quadrupled to 84,000 dwellings (12%).

More than two-fifths (44%) of dwellings without central heating in 2006 used some type of solid fuel for basic heating.

Central Heating Fuel Source - Tenure (A7.1)

There was considerable change in central heating fuel by tenure between 2001 and 2006:

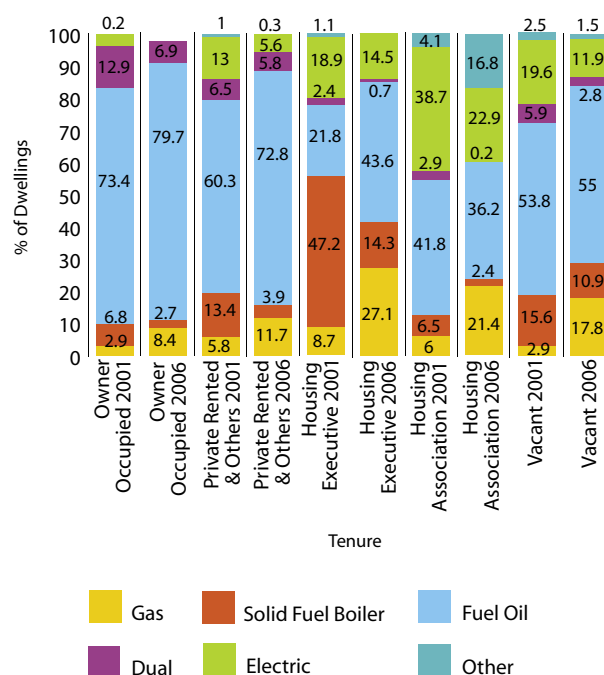
- Overall, 70 per cent of all dwellings in 2006 had oil fired central heating. This increased to 79 per cent for owner occupied dwellings and a further seven per cent of owner occupied properties had dual fuel systems (5% overall). Indeed, four-fifths (81%) of all dwellings in Northern Ireland in 2006 with oil central heating, including dual fuel, were owner occupied homes.
- In 2001 the private rented sector had a below average proportion of dwellings with oil fired central heating (54%) and above average proportions of dwellings had electric (15% compared to 7% overall) and gas (11% compared

to 8% overall) central heating systems. By 2006 the proportions of dwellings using oil and gas had increased to 72 per cent and 12 per cent respectively. A further six per cent had dual fuel central heating. Conversely the proportions using solid fuel and electricity to fuel their central heating had fallen to four per cent and six per cent respectively. The main change in fuel use in central heating systems in the private rented sector since 2001 has been the increasing proportion of dwellings using mains gas (from 4% to 12% in 2006) with a corresponding decrease in solid fuel systems (from 12% to 4% in 2006).

The 2006 House Condition Survey also confirms the significant level of fuel switching taking place in social housing, from solid fuel and electric to gas and oil. However, the change in Housing Executive and housing association dwellings is somewhat different:

- In the case of Housing Executive dwellings the switch has been mainly from solid fuel (a decrease from 46% in 2001 to 14% in 2006) and electric (a decrease from 18% to 14% in 2006) to oil (from 21% to 43% in 2006) and gas (from 8% to 27% in 2006). Indeed analysis of all dwellings with mains gas central heating shows that the largest proportion (30%) were managed by the Housing Executive.
- Analysis of housing association dwellings shows that the switch has mainly been from oil (from 42% in 2001 to 36% in 2006) and electric (from 39% in 2001 to 23% in 2006) to gas (from 5% in 2001 to 21% in 2006). Figure 7.3 summarizes these changes for the period 2001 to 2006.

FIGURE 7.3 CENTRAL HEATING FUEL AND TENURE, 2001-2006



Central Heating Fuel Source - Age of Dwelling (Table A7.2)

There was some association between dwelling age and the type of central heating fuel. Newer dwellings (post 1980) were more likely to have more efficient forms of heating such as oil (73% compared to 70% overall) and less likely to have solid fuel (2% compared to 5% overall) and electric (4% compared to 5% overall). Dwellings built before 1919 were the least likely to have oil central heating (64%) compared to all other dwelling age groups and were the most likely to have no central heating (7% compared to 2% overall).

Central Heating Fuel Source - Dwelling Type (Table A7.3)

Analysis of central heating fuel source by dwelling type showed there were a number of differences.

- There was considerable variation in the proportions of dwellings with oil central heating across the different dwelling types. More than four-fifths (85%) of detached houses had oil central heating compared to only 15 per cent of flats.

- A higher proportion of single storey properties had oil central heating (79% compared to 70% overall), but a much lower proportion had gas central heating (4% compared to 12% overall).
- Terraced housing had above average proportions of dwellings with solid fuel (9% compared to 5% overall) and gas (18% compared to 12% overall).
- Flats/apartments had a high rate of dwellings with electric central heating (40% compared to 5% overall). Indeed almost two-thirds (61%) of all dwellings with electric central heating were flats/apartments. Almost one-fifth (19%) of all flats had gas central heating (12% overall).

Central Heating Fuel Source - Dwelling Location (Table A7.4)

The use of mains gas for heating continues to increase in the Belfast Metropolitan Area and although the 2006 House Condition Survey has shown the decline in the use of electricity for central heating, it continues to be concentrated in urban areas:

- Above average proportions of dwellings with oil fired central heating systems were found in dwellings located in rural areas (80%), this compares to 66 per cent in urban areas. This overall pattern was consistent with findings in 2001. In the BMA only 59 per cent of dwellings had oil fired central heating.
- Almost all gas-heated dwellings were located in urban areas and in particular in the Belfast Metropolitan Area (92%) reflecting the extent of the gas network. In 2006, more than one-quarter (77,200; 28%) of all dwellings in the BMA had gas central heating, compared to 10 per cent in 2001 (19,600 dwellings).
- The majority of dwellings with solid fuel (68%) and electric (91%) central heating were also located in urban areas, partly reflecting concentrations of Housing Executive dwellings.
- Overall two per cent of dwellings had no central heating and almost one-half (47%) of these were located in rural areas.

Central Heating Fuel Source - Household Characteristics (Table A7.5)

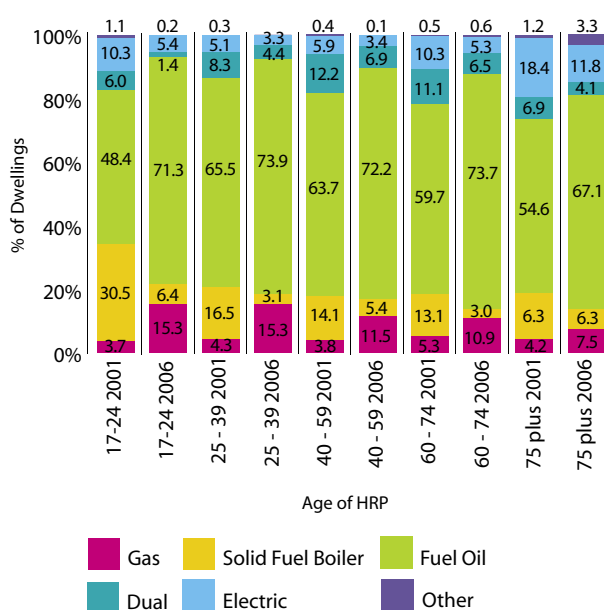
This section gives an overview of central heating fuel by key household characteristics. Overall, 99 per cent of occupied homes had central heating.

Age of Household Reference Person

Figure 7.4 summarizes the association between central heating fuel types and the age of the household reference person:

- Three-fifths (60%) of dwellings with no central heating were occupied by households with a household reference person aged 60 or older.
- Younger households were more likely to have gas heating (15% for both 17 to 24 year olds and 25 to 39 year olds).
- The youngest (71% of 17 to 24 year olds) and oldest age groups (66% of those aged 75 or older) were the least likely to have oil central heating and were more likely to live in dwellings with electric central heating (5% and 12% respectively)

FIGURE 7.4 CENTRAL HEATING FUEL AND AGE OF HOUSEHOLD REFERENCE PERSON, 2001 - 2006



Household Type

The relationship of fuel sources to household type reflect tenure variations to a significant extent.

- Analysis of oil central heating by household type shows that lower proportions of lone adults (61%), lone older (63%) and lone parents (65%) lived in households with oil fired central heating compared to 72 per cent overall.
- In households where the household reference person was a lone parent, the fuel used in central heating had changed considerably between 2001 and 2006; the use of gas had increased from 10 per cent to 20 per cent and the use of oil had increased from 39 per cent to 65 per cent. This largely reflects the improvements to heating systems in social housing and also the higher proportions of lone parents in privately rented accommodation (see chapter 4). A high proportion of lone parent families lived in households with solid fuel central heating (9% compared to 4% overall).
- Finally, single person households were more likely to live in dwellings with electric central heating (lone older (13%) and lone adult (11%) compared to 5% overall).

Employment Status

Again patterns to a large extent reflect tenure variations. Oil fired central heating varied from 83 per cent for households categorized as self-employed, to 53 per cent for households categorized as unemployed. Higher rates of gas central heating

were also found in households where the household reference person was unemployed (20%).

Households where the household reference person was retired lived in homes with a higher than average rate of electric central heating (9% compared to 5% overall). Analysis of all occupied dwellings with no central heating shows that more than one-third (35%) were occupied by households whose household reference person was retired.

Income

There was considerable variation across income bands in terms of the proportion of households with oil fired central heating. In households with an annual income of £30,000 or more 81 per cent had oil fired central heating whereas for households with less than £7,000 per annum, the corresponding figure was 61 per cent.

Conversely a much higher proportion of households with an income of less than £7,000 had solid fuel central heating (8%) and electric central heating (11%) compared to households with an income over £30,000 (both 1%).

7.4 Dwelling Insulation

House Condition Surveys have shown that the proportions of dwellings with both wall and loft insulation have increased markedly over time. This is mainly due to higher standards in new dwellings and improvements carried out in existing dwellings.

Table 7.2 shows the progress made in relation to wall insulation 1996-2006.

TABLE 7.2 WALL INSULATION, 1996-2006

	1996		2001		2006	
	Number	%	Number	%	Number	%
Cavity Wall Insulation	219,600	36	324,300	50	434,000	62
Partial Cavity Wall Insulation	N/A	N/A	37,900	6	58,200	8
Dry lining/External Insulation	62,800	10	29,800	5	56,400	8
No wall insulation	320,100	53	255,600	39	156,400	22
All dwellings	602,500	100	647,500	100	705,000	100

Between 2001 and 2006, the number and proportion of the stock with full cavity wall insulation grew substantially by almost 110,000 to 434,000 (from 50% to 62%). Similarly there was a significant increase in the number and proportion of dwellings with partial cavity wall insulation (from 37,900 (6%) to 58,200 (8%)).

The number and percentage of dwellings with no wall insulation fell dramatically from 255,600 (39%) in 2001 to 156,400 (22%) in 2006.

The analysis of the housing stock in terms of wall insulation is complex, primarily due to the fact that many older dwellings (often with solid walls) now have modern extensions with insulated cavity walls.

For the purpose of this analysis the following classification has been adopted.

Full Cavity Wall Insulation

Dwellings constructed with cavity walls where all walls contain cavity wall insulation.

Partial Cavity Wall Insulation

Dwellings of full or part cavity wall construction; where at least one cavity wall contains insulation. A small number of dwellings in 2006 (5,000) were recorded as having no cavity walls but have cavity wall insulation. These dwellings have insulated concrete or timber panels and are classified as partial cavity wall insulation.

Dry Lining/External Insulation

Dwellings originally built with solid wall construction, not included in the above category, but which have at least one wall with external insulation or dry lining.

No Wall Insulation

The remaining dwellings (of cavity wall or solid construction or both) where there is no evidence of insulation.

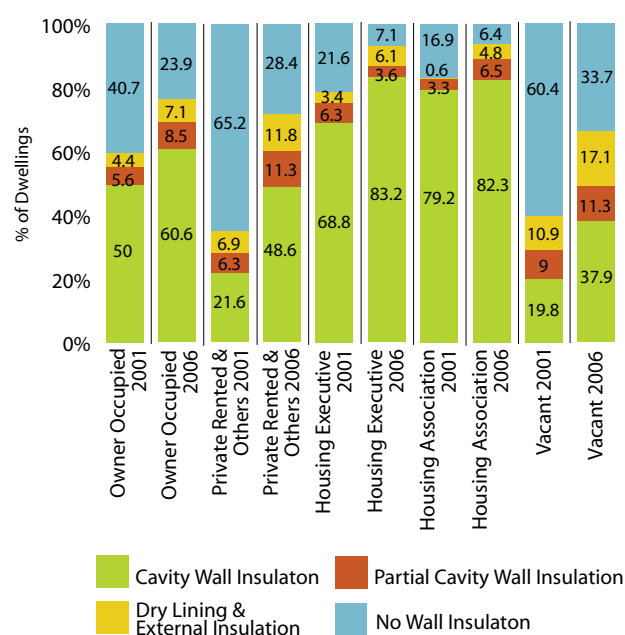
It should be noted that as in 2001, the figures for 2006 are not directly comparable with the 1996 survey, when surveyors were asked to focus on wall insulation which had been added after construction was completed.

Wall Insulation - Tenure (Table A7.6)

The proportion of dwellings with full cavity wall insulation increased in all tenures since 2001.

- In 2006 the highest rates of full cavity wall insulation were for social housing; Housing Executive (83%; 69% in 2001) and housing association (82%; 79% in 2001).
- Conversely, the lowest proportions of full cavity wall insulation were found in dwellings that were privately rented or were vacant (49% and 38% respectively).
- The tenures where most improvement had taken place since 2006 were the private rented sector (from 22% to 49% in 2006), vacants (from 20% to 38%) and the owner occupied sector (from 49% to 61%).
- Overall, more than one-fifth (22%) of all dwellings in 2006 had no wall insulation; this rose to 33 per cent for vacant stock and 28 per cent for privately rented dwellings. However, both showed considerable improvement since 2001 when the figures were 60 per cent and 65 per cent respectively. Analysis of all dwellings with no wall insulation shows that the majority were in the private sector (72% of the total were owner occupied and 15% were privately rented).

FIGURE 7.5 CAVITY WALL INSULATION AND TENURE, 2001 - 2006



Dwelling Age - Wall Insulation (Table A7.7)

In 2001, there was a clear association between dwelling age and wall insulation and the 2006 figures show a similar relationship:

- The vast majority of dwellings built after 1980 (92%) had full cavity wall insulation. The proportion declined steadily by age group to four per cent of pre-1919 dwellings, reflecting the solid wall construction that predominated during this period.
- The oldest dwellings (pre-1919) showed some improvement in the rate of partial wall insulation between 2001 and 2006 rising from 11 to 31 per cent, probably reflecting the addition of extensions with wall insulation.
- The 2006 House Condition Survey shows that there was a decline in the proportion of older dwellings with no wall insulation between 2001 and 2006. In 2006 more than two-fifths (43%) of dwellings built before 1919 had no wall insulation. The comparable figure for 2001 was 73 per cent. Similarly, only 52 per cent of dwellings built between 1919 and 1944 had no wall insulation in 2006 compared to 72 per cent in 2001. More than one-half (55%) of all dwellings with no wall insulation were built before 1945.

Dwelling Type - Wall Insulation (Table A7.8)

There was little variation in wall insulation by dwelling type. There was a slightly higher proportion of flats/apartments and single storey dwellings with full wall insulation (68% and 67%, compared to 62% overall). Semi-detached houses had the highest proportion of dwellings with no wall insulation (28%) and flats/apartments the lowest (16%) compared to an overall average of 22 per cent.

Dwelling Location - Wall Insulation (Table A7.9)

The 2006 House Condition Survey indicates that dwellings located in urban areas (61%) had a slightly lower rate of full cavity wall insulation compared to dwellings located in rural locations (63%). This was consistent with findings in 2001. The rate of full wall insulation rose to 74 per cent in small rural settlements compared to only 52 per cent in

isolated rural areas, and reflects the age profile of these dwellings.

The highest rate of dwellings with no insulation was in the Belfast Metropolitan Area (32%) and the lowest in small rural settlements (14%).

Household Characteristics - Wall Insulation (Table A7.10)

Age of Household Reference Person

As in 2001, dwellings occupied by households whose household reference person was aged 75 or older (57%) were less likely to have full cavity wall insulation. All other age groups were close to the overall average. However, in contrast to 2001 when household reference persons aged 17 to 24 had the lowest rate of full cavity wall insulation, this group now has the highest (66%), reflecting the growing number who have met their housing needs in modern privately rented dwellings.

Household type

In general there was little variation in the proportions of full cavity wall insulation by household type. Households classified as "two older" lived in dwellings with the highest proportion of dwellings with no insulation (26% compared to 22% overall), for lone parents the comparable figure was 13 per cent. However, lone parents did live in dwellings with an exceptionally high rate of full cavity wall insulation (73%), again reflecting their growing presence in modern privately rented dwellings.

Employment status

Again there was little variation in the proportions of full cavity wall insulation by employment status. Households categorised as not working and not seeking work (70%) and permanently sick/disabled (69%) had high rates of full cavity wall insulation (compared to 63% overall).

Income

Due to the high levels of full cavity wall insulation in social housing there was little variation by income (57% for households with an annual income of £7,000 and 63% for households with an annual income of £30,000 or more). This is consistent with 2001 findings.

Religion

More than two-thirds of Catholic (67%) and three-fifths of Protestant (61%) households had full cavity

wall insulation. Conversely, one-quarter (25%) of Protestant and 17 per cent of Catholic families had no wall insulation in their homes.

7.5 Loft Insulation

The 2006 House Condition Survey collected information on the presence and thickness of loft insulation in all dwellings with lofts (only top floor flats were included), where access was available and where the householder granted permission. Comparison with the findings from 2001 shows that steady progress has been made.

The 2006 Survey estimated that some 650,300 (90%) dwellings had lofts. Of these around 50,000 had been converted to a room(s) with permanent stairs or the pitch of the roof was too shallow to permit access or insulation to be laid. This left a total of 635,600 dwellings (90% of the total stock) where there was potential for loft insulation:

- Of these, 95 per cent (602,600 dwellings) had loft insulation, an increase from 89 per cent in 2001;
- Almost four-fifths (79%; 504,800) of dwellings had loft insulation of up to 150mm, a decline from 85 per cent in 2001;
- A further 14 per cent had loft insulation more than 150mm, a considerable increase from four per cent in 2001.
- Five per cent (33,400) of dwellings had no insulation at all. The comparable figure for 2001 was six per cent.
- The remaining 10,900 dwellings (2%) had insulation but the surveyor was unable to determine the thickness.

Loft Insulation - Tenure (Table A7.11)

As in 2001, almost all (99.7%) social dwellings had loft insulation, reflecting primarily improvement programmes (in the case of the Housing Executive) and primarily the age profile of the stock (in the case of housing association dwellings).

In 2006 only five per cent of both owner occupied and privately rented dwellings had no loft insulation, the same proportion as for the stock which have lofts as a whole.

More than one-fifth (22%) of vacant dwellings had no loft insulation, a reduction from 25 per cent in 2001.

Loft Insulation - Dwelling Age (Table A7.12)

There was a clear association between loft insulation and age of dwelling.

- The oldest age categories had the highest proportions of dwellings with no insulation (15% for pre-1919 and 11% for 1919 to 1944 compared to 5% overall).
- Almost all dwellings built since 1980 had loft insulation and 36 per cent of these newer dwellings had insulation more than 150mm thick, well above the overall average of 14 per cent.
- Dwellings built between 1965 and 1980 were more likely to have loft insulation measuring up to 150mm thick (93%; 80% overall), reflecting the standards of loft insulation at the time of construction.

Loft Insulation - Dwelling Type (Table A7.13)

Detached houses had the highest rate of no loft insulation (8% compared to 5% overall).

The dwelling type with the highest proportion of properties with insulation was flats/apartments (98%). However, the highest standard of loft insulation in terms of thickness (more than 150mm) was also found in detached houses (24%).

Loft Insulation - Location (Table A7.14)

- Dwellings with lofts located in rural areas were slightly more likely to be without loft insulation compared to those in urban areas (7% and 5% respectively). This rose to 11 per cent for dwellings located in isolated rural areas.
- In the Belfast Metropolitan Area there was a high proportion (84%) of dwellings with loft insulation less than 150mm thick. Isolated rural areas had the highest rate (24%) of dwellings with loft insulation of more than 150mm.

Household Characteristics - Loft Insulation (Table A7.15)

Overall, 96 per cent of occupied dwellings with lofts had loft insulation.

Age of Household Reference Person

Households with household reference persons aged 75 or more were most likely to live in dwellings with no loft insulation (9%) and least likely to live in dwellings with more than 150 mm of loft insulation.

The age group 25 to 39 (23%) were most likely to live in dwellings with the highest standard of loft insulation (more than 150mm in thickness).

Household Type

There was some variation in dwellings without loft insulation by household type. Households described as two older (7%) and lone older (8%) lived in dwellings with the highest rates of dwellings with no loft insulation (compared to 4% overall). Small family (19%) and two adult (18%) households were more likely to live in dwellings with the highest standard of loft insulation (more than 150mm in thickness).

Employment Status

Households with retired household reference persons were more likely to live in dwellings with no loft insulation (7%) compared to the average of four per cent.

Annual Income

Households with an income of less than £7,000 (7%) were more likely to live in homes with no insulation, whereas households with an income of at least £30,000 (19%) were most likely to live in dwellings with loft insulation of at least 150mm.

Religion

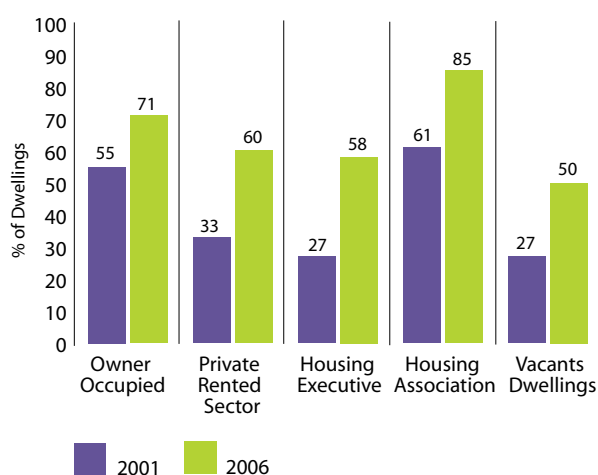
There was some variation by religion, largely due to the differing age profiles and the tendency for Catholics to live in newer housing. Five per cent of Protestant households had no loft insulation compared to three per cent of Catholic households. Protestant households (12%) were less likely to live in dwellings with higher standards of loft insulation (more than 150mm in thickness) compared to Catholic households (14%).

7.6 Double Glazing

The 2006 House Condition Survey confirms the considerable progress made in relation to this aspect of energy efficiency in Northern Ireland's dwelling stock.

- In 2001, almost one-half (47%; 302,300) of all dwellings had full double-glazing. By 2006 this proportion had increased to 68 per cent (476,200 dwellings).
- The proportion of dwellings with partial glazing declined from 22 per cent to 19 per cent between 2001 and 2006 and the proportion of dwellings without double-glazing decreased from 31 per cent to 14 per cent over the same period.

FIGURE 7.6 DOUBLE GLAZING AND TENURE, 2001-2006



Double Glazing - Dwelling Tenure (Table A7.16)

Figure 7.7 shows the clear improvement made in the levels of full double-glazing across all the tenures 2001 to 2006:

- Overall, housing association (85%) and owner occupied (71%) dwellings were most likely to have full double-glazing.
- Over the period 2001 to 2006, full double-glazing had increased the most in the private rented sector (from 33% to 60%) and in Housing Executive dwellings (from 27% to 58%).
- There was also considerable improvement in the social sector in terms of the proportion of dwellings with no double glazing. More than three-fifths (61%) of Housing Executive stock had no double-glazing in 2001; by 2006 this

proportion had reduced to 28 per cent. In housing association stock almost one-third (32%) had no double-glazing in 2001, by 2006 this had reduced to 11 per cent.

Double Glazing - Dwelling Age (Table A7.17)

As in 2001, there was a correlation between dwelling age and the presence of full double-glazing.

- In 2006 the vast majority of dwellings built after 1980 (87%) had double-glazing and this steadily declined by age of dwelling to 44 per cent for dwellings built before 1919. Likewise the age group with the highest proportion (25%) of dwellings without double-glazing were the group comprising dwellings built before 1919.
- Dwelling in all age groups showed considerable increases in the proportion of dwellings with full double glazing. All age groups (with the exception of pre-1919) showed increases of at least 20 percentage points.

Double Glazing - Dwelling Type (Table A 7.18)

Analysis of full double-glazing by dwelling type shows little variation from the average, ranging from 70 per cent for semi-detached houses to 62 per cent for terraced houses. The dwelling types showing the greatest increase in full double-glazing since 2001 were flats/apartments from 48 per cent in 2001 to 75 per cent in 2006.

As in 2001, flats/apartments (18%) and terraced housing (18%) were more likely to have no double-glazing compared to the other dwelling types (14% overall).

Double Glazing - Dwelling Location (Table A7.19)

There was no variation by dwelling location, as a little over two-thirds of both urban (67%) and rural (68%) dwellings had full double-glazing. There was also almost no variation by location in terms of the proportion of dwellings with no double glazing.

Household Characteristics - Double Glazing (Table A7.20)

The proportion of occupied dwellings with full double-glazing in 2006 was 69 per cent, an increase from 48 per cent in 2001. Conversely, 13 per cent

had no double-glazing in 2006, a considerable decrease from 30 per cent in 2001.

Age of Household Reference Person

More than three-quarters (76%) of household reference persons aged 25 to 39 lived in dwellings with full double glazing compared to only 56 per cent of those aged 75 or more. Conversely, household reference persons aged 75 or more were much more likely to live in dwellings without double-glazing (20%). This pattern was consistent with 2001.

Household Type

Small and large families were more likely to live in dwellings with double-glazing (77% and 78% respectively). Conversely, lone older (18%), lone adult (18%), lone parent (19%) were most likely to be living in dwellings without double-glazing, compared to the overall average of 13 per cent.

Employment Status

There was some variation in the proportion of dwellings with full double-glazing from the overall average by employment status. Households with reference persons working full-time were slightly more likely to live in dwellings with full double-glazing (76%; 69% overall). Conversely, households, where the household reference person was unemployed were much more likely to be living in dwellings without double glazing (25%).

Household Annual Income

There was a clear relationship between annual household income and double-glazing in that higher income households were more likely to have double-glazing. More than three-quarters (77%) of households with annual income of £30,000 or more had full double-glazing compared to only three-fifths (61%) of households with annual income of less than £7,000.

Household Religion

Very similar proportions of Protestant (69%) and Catholic (68%) households had full double-glazing. Likewise, approximately 13 per cent of both Protestant and Catholic households lived in dwellings with no double glazing.

7.7 SAP Rating (NI) 2005

The Standard Assessment Procedure (SAP) is the Government's standard method of rating the energy efficiency of a dwelling. The Building Research Establishment (BRE) has on behalf of the Government developed the current and previous models.

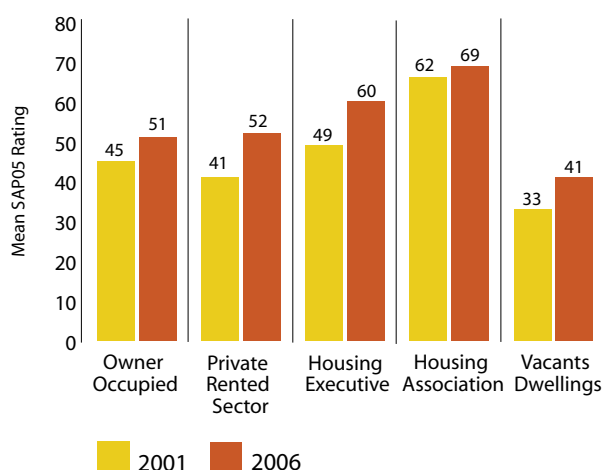
In 2001 BRE developed a modified SAP model for Northern Ireland to take into account the greater prevalence of solid fuel and electrical heating compared to England. This BRE model was comparable to the English model in all other aspects and provided the basis for the analysis of the data from the 2001 House Condition Survey. In 2005 the SAP model was modified, to take into account, in particular, thermal bridging. This new model (SAP05) was used to analyse the data from the 2006 House Condition Survey. The 2001 figures were then recalculated to provide a consistent time series.

The SAP rating is on a logarithmic scale and provides a comparative measure of the energy efficiency of dwellings. The lower the score the lower the energy efficiency and the higher the score (up to a maximum of 100) the higher the efficiency. Appendix E provides further information on how SAP was calculated for Northern Ireland.

In 2001, Northern Ireland's dwelling stock had an average SAP rating (SAP05) of 45.5; by 2006 this had increased to 52.4, an increase of approximately seven percentage points. This improvement in the energy efficiency of the stock was primarily due to fuel switching from solid fuel and electric to gas and oil, combined with improvements in cavity wall insulation, loft insulation and double-glazing. The estimated average SAP05 figure for England in 2006 was 48.7.

This section outlines how the SAP rating varied by the physical characteristics of the dwelling and the socio-demographic characteristics of the household.

FIGURE 7.7 SAP05 RATING AND TENURE, 2001-2006



SAP Rating - Tenure (Table A7.21)

The SAP rating had increased for all tenures between 2001 and 2006.

- Housing association dwellings continued to be the most energy efficient, with a SAP rating of 69, an increase from 66 in 2001. More than four-fifths (83%) had a SAP rating of at least 60. This largely reflects the growing proportion of newer housing association dwellings.
- In 2006 Housing Executive stock was the second most energy efficient tenure with a SAP rating of 60, a considerable increase since 2001 (49), reflecting the ongoing switch from solid fuel and electric central heating to gas and oil. Almost two-thirds (59%) had a SAP rating of at least 60.
- There was a more modest increase in the SAP rating of owner-occupied dwellings, from 45 in 2001 to 51 in 2006. However, seven per cent (30,800 dwellings) of owner occupied dwellings had a SAP rating of less than 20, the highest rate for the occupied tenures.
- Privately rented dwellings had an average SAP rating approximately equal to the Northern Ireland average of 52. This tenure has shown the most improvement since 2001 (11 percentage points) when the average SAP rating was 41 and reflects in particular the large numbers of new dwellings entering the private rented sector.

- Vacant dwellings had by far the lowest average SAP rating (41) although this too had risen considerably since 2001 (33). Almost one-quarter (24%; 9,500) of all vacant dwellings had a SAP rating of less than 20.

SAP Rating - Dwelling Age (Table A7.22)

There was a clear relationship between the SAP rating and the dwelling age. Older dwellings were less energy efficient and as age decreased the SAP rating increased. In pre-1919 dwellings the average SAP rating in 2006 was 37. This steadily increased by age band to 62 for dwellings built after 1980. Almost one-fifth (18%) of pre-1919 dwellings had a SAP rating of less than 20 (20,300 dwellings). This pattern was consistent with findings in 2001.

SAP Rating - Dwelling Type (Table A7.23)

There was some variation in the SAP rating by dwelling type. As in 2001, single storey dwellings had the lowest SAP rating (46; 40 in 2001) and flats/apartments had the highest SAP rating (63; 56 in 2001).

SAP Rating - Dwelling Location (Table A7.24)

Urban dwellings (54) were more energy efficient than rural (47) dwellings. In 2006, dwellings in isolated rural areas (43; 34 in 2001) continued to have by far the lowest average SAP rating compared to other locations. Isolated rural areas also continued to have the highest proportion of dwellings (14%; 14,600) with a SAP rating of less than 20; reflecting fuel use and the higher vacancy rate.

SAP Rating - Household Characteristics (Table A7.25)

The following outlines variations in average SAP ratings by household characteristics. Overall, the average SAP rating for occupied dwellings was 53.

Age of Household Reference Person

There was some association between age of the household reference person and the energy efficiency of dwellings.

- Older household reference persons were more likely to be living in dwellings that were less energy efficient. In 2006, households with reference persons aged 75 or older had the lowest average SAP (49).

- Average SAP steadily increased as household reference persons became younger, peaking at 60 for 17 to 24 year olds. This was generally consistent with findings in 2001 and reflects the finding that younger household reference persons were more likely to live in newer dwellings.

Household Type

Analysis by household type shows a similar picture. Two person older households had the lowest SAP rating (49).

Lone parent families were most likely to live in the most energy efficient dwellings (average SAP rating 59), reflecting their concentrations in newer privately rented dwellings and in the social sector.

Employment Status

Household reference persons who were retired were more likely to live in the least energy efficient dwellings (average SAP rating 51) reflecting the higher proportion of these households living in the oldest stock (See Chapter 4).

Household reference persons who were unemployed (average SAP rating 55) tended to live in the most energy efficient dwellings, reflecting the tenure of their homes.

Income

As in 2001, there was a positive relationship between average SAP rating and annual household income, rising from 52 for households with an annual income of less than £7,000 to 54 for households in the highest income bracket (£30,000 or more).

Religion

There was a little difference in the average energy efficiency of dwellings occupied by Protestant (average SAP 52) and Catholic (average SAP 54) households, reflecting both the age profile of households and the tendency for Catholic households to live in newer dwellings.

7.8 Summary

The 2006 House Condition Survey confirmed the ongoing progress being made in achieving higher levels of energy efficiency in Northern Ireland's

housing stock. The most important contributory factor has been the switching of domestic central heating fuel from solid fuel or electric to oil or gas:

- Overall 98 per cent of dwellings in 2006 had central heating (95% in 2001);
- Oil has increasingly become the preferred fuel for domestic heating. The proportion of dwellings with oil fuel central heating (including dual systems) increased by eight percentage points since 2001, from 68 per cent in 2001 to 76 per cent in 2006;
- The use of solid fuel for heating fell from 14 per cent in 2001 to less than five per cent in 2006;
- The use of gas steadily increased from three per cent in 2001 to 12 per cent in 2006.

Improvements to wall insulation, loft insulation and double-glazing also made an important contribution to the improvement in the energy efficiency of the stock.

- Full cavity wall insulation has increased by 12 percentage points over the period 2001 to 2006 (from 50% to 62%);
- Conversely the proportion of dwellings with no wall insulation has fallen dramatically between 2001 and 2006 (from 39% to 22%);
- The proportion of dwellings with lofts with loft insulation rose from 89 per cent in 2001 to 95 per cent in 2006;
- The proportion of dwellings with double glazing has increased by 21 percentage points from 47 per cent to 68 per cent in 2006, and the proportion without double-glazing has fallen from 31 per cent in 2001 to 14 per cent in 2006.

These changes in the energy profile of the stock combined to produce a considerable improvement in the overall SAP rating (SAP05) - rising from 45.5 to 52.4 between 2001 and 2006.

The improvements in energy efficiency have taken place in all sectors of the housing market, but particularly in the private rented sector - mainly due to the increasing numbers of newer dwellings in

this sector - and in Housing Executive stock where ongoing improvement programmes, including the introduction of new central heating systems, have been implemented.

Similarly, energy efficiency has generally improved for all groups of households. Some 36,130 households have a SAP rating of less than 20 and, as in 2001, these tended to be the most vulnerable groups where the household reference person was elderly, unemployed or on a low income.

APPENDIX A

THE CONDUCT OF THE SURVEY

Surveyor Training

A total of 26 professional surveyors were employed to work on the 2006 House Condition Survey (HCS); 19 of whom worked on the 2001 and/or 2004 HCS.

The majority of surveyors employed were Environmental Health Officers seconded from a number of District Councils and the rest were mainly architects or chartered surveyors.

Two experienced supervisors were re-appointed both having carried out this role for the 1996, 2001 and 2004 Surveys. In addition, two new supervisors were appointed both having been surveyors on the 1996, 2001 and 2004 Surveys. Each supervisor was responsible for advising surveyors and ensuring their work was of a consistent and satisfactory quality.

The 19 surveyors with previous HCS experience attended a three-day pre-briefing session in March 2006 held at the Canal Court Hotel, Newry, Co. Down. The purpose of the training was to focus on key sections of the survey form, introduce any changes made to the form since 2004, give in-depth training on the Housing Health and Safety Rating System and a refresh on interviewing techniques.

The training was conducted by Housing Executive Research Staff, the Building Research Establishment (BRE) and by the HCS supervisors. Training included test inspections of selected dwellings in Newry.

The seven new surveyors received six days of intensive training in Warwick University Conference Centre in England. This training took place at the same time as the training of English surveyors, ensuring comparability of results, and was carried out by staff from the Department for Communities and Local Government (DCLG) and BRE.

After the fieldwork was completed, surveyors attended a one-day de-briefing session to discuss general and more specific problems that had arisen during the Survey.

Fieldwork

Fieldwork was due to begin in March and be completed in October 2006. In the event the vast

majority of surveys were completed by 31st October, but a small number were completed in November 2006.

Each surveyor was responsible for between 100 and 475 full inspections depending on whether they were contracted on a part time or full time basis. They were required to work in at least two districts to reduce likelihood of differences between councils being the result of surveyor variability.

In 2006 (as in 2001 and 2004), a system of 'payment by result' was used and there were four different rates of payment;

- Full physical inspection and household survey
- Full physical inspection but no household survey
- Full physical inspection of vacant dwellings
- Refusal/non-response

A property could be classified as a non-response only after a minimum of five visits. Surveyors were required to complete the first two pages and take at least one photograph for all dwellings. These photographs were to be an important part of the data quality assurance.

Each surveyor issued a letter and a leaflet to each household selected explaining the purpose of the survey 1-2 weeks prior to calling out.

Surveyors returned their completed forms on a weekly basis. Initial quality assurance checks were carried out by the Housing Executive's Research Unit to complete any obvious omissions of a non technical nature. This was followed by supervisors checking key technical data and completing and correcting as appropriate in consultation with the surveyor.

Each survey form was registered on the Housing Executive SMS (survey management system). Details such as the survey response, basic dwelling characteristics, condition, fitness and photographs were recorded. The SMS was used to provide information on how the fieldwork was progressing, initial summary data and as a check on forms passing through the first stage of validation. Once registration had been completed forms were sent to IPSOS MORI for scanning, input and more in-depth validation.

Data Preparation and Validation

Data punching and validation was carried out by IPSOS MORI. A computerised validation programme was used which highlighted errors and plausibility checks on each survey form. These were checked by IPSOS MORI staff guided by one of the Northern Ireland House Condition Supervisors. Further post-validation checks and analysis by the Research Unit indicated that, following input and validation, data quality was high.

Please Affix Address Label Here

Surveyor
Name

Surveyor Number

1. Survey record

	Date		Start time		Finish time		Internal inspection			External inspection			Household Interview		
	Day	Mth	Hrs	Mins	Hrs	Mins	Full	Partial	None	Full	Partial	None	Full	Partial	None
First visit							1	2	3	1	2	3	1	2	3
Last visit							1	2	3	1	2	3	1	2	3
Total number of visits							1	2	3	1	2	3	1	2	3

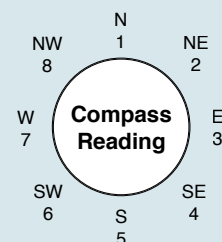
Fitness outcome (from section 22: page 31)	Is the dwelling unfit?			
	Unfit	Defective	Acceptable	Satisfactory
	1	2	3	4
	Y	N		

Survey Outcome

Full survey 1	Problems of access			Other problems				
	No contact made 2	Access refused to surveyor 3	Access refused at NIHE 4	Address untraceable 5	Dwelling derelict 6	Dwelling demolished 7	No longer usable as a dwelling 8	Other 9

Number of photographs taken

0	1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---	---



2. First impression of condition/NAV

Seriously defective	Defective		Acceptable		Satisfactory	
1	2	3	4	5	6	7

NAV

Is the dwelling in accord with the NAV?

Yes	1
No	2

Inspect this dwelling

Is there another dwelling on the plot that better matches the NAV?

Yes	1
No	2

Is this a viable dwelling?

Yes	1
No	2

Inspect this dwelling

Inspect original dwelling

Inspect original dwelling

3. Dwelling description and occupancy

Dwelling type

House						Flat		
End terrace 1	Mid terrace 2	Mid terrace with passage 3	Semi detached 4	Detached 5	Temporary 6	Purpose built 7	Converted 8	Non residential plus flat 9
Bungalow Y N								

Tenure (clarify with household) (if vacant record tenure when last occupied)

Owner occupied 1	Private rented 2	Housing Executive 3	Housing association 4
---------------------	---------------------	------------------------	--------------------------

OFFICE USE ONLY

Address on PRAWL database?
YES NO

Prop. ref. No. _____
Prop code _____
If 'S' date of sale / /

Address on Grants database?
YES NO

Grants No. _____

Date of construction from VLA
Year _____

Construction date (clarify with household)

Pre 1919 1	1919-1944 2	1945-1964 3	1965-1974 4	1975-1980 5	1981-1990 6	1991-2000 7	2001-2006 8	If Post 2000 specify year
---------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	-------------------------------

Occupancy (ask where possible)

Source of information

Occupied 1	Vacant						
	Awaiting another owner 2	Awaiting another tenant 3	Awaiting demolition 4	Being modernised 5	New never occupied 6	Being used for other purpose 7	Other (specify) 8

If occupied: how long have the current occupants lived here?

If vacant: how long has the dwelling been vacant?

Is the dwelling boarded up/secured?

Years

Months

--	--

--	--

--	--

--	--

Y	N
---	---

Permanent residence?

Yes 1	No - Second Home 2	No - Holiday Home 3	Long Term Vacant 4
----------	-----------------------	------------------------	-----------------------

Source of information on tenure and occupancy

Occupant 1	Neighbour 2	Caretaker/warden/agent 3	Estimate/appearance 4	Other (specify): 5
---------------	----------------	-----------------------------	--------------------------	-----------------------

Type of occupancy

Single family dwelling 1	Shared house 2	Household with lodgers 3	Bedsits or flatlets 4	Purpose built with shared amenities 5	Hostel/B&B 6	Converted self contained flat 7
Complete HMO form						

4. Is address one dwelling?



Continue

Split

Merger

YES
1

NO - dwelling is part of one address
2

NO - address is part of one dwelling
3

no. dwellings at address

--	--

no. addresses at dwelling

--	--

Consult Supervisor if in doubt

Does room exist?
Level (**B, G, 1, 2, 3** etc)
Function (L, D, K, B, T, S, U, C, X)
Room inspected?
Ceiling height (**metres**)
Width (**metres**)
Depth (**metres**)
Serious underestimate of room size

Living Room		Kitchen		Bedroom		Bathroom		Circulation	
Y	N	Y	N	Y	N	Y	N	Y	N
Y	N	Y	N	Y	N	Y	N	Y	N
Y	N	Y	N	Y	N				

Ceilings (answer in tenths)

Y N	Y N	Y N	Y N	Y N

Floors (answer in tenths)

Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N

Walls (answer in tenths)

Doors (answer in numbers)

Y	N	Y	N	Y	N	Y	N	Y	N

Windows/Frames

Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N
Y N	Y N			

Heating & Services

Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N

Defects

Living Room	Kitchen	Bedroom	Bathroom	Circulation
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
Y	Y	Y	Y	Y
N	N	N	N	N

Rats and Mice

Y	Y	Y	Y	Y
Y	Y	Y	Y	Y

Extra Room 1	Extra Room 2	Extra Room 3	Extra Room 4	Extra Room 5	Extra Room 6	Extra Room 7	Integral balcony	Integral garage	Habitable rooms (specify No)
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	<input type="text"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Separate units?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Y N

Stairs within dwelling

Present?	Y N
Open Plan?	Y N
Faults?	Y N
Replace structure	Y
Replace treads	Y
Replace balustrades	Y
Repair/refix treads/balustrades	Y

Health and Safety

Falls on stairs	1	2	3
Falls on the level	1	2	3
Falls between levels	1	2	3
Fire	1	2	3
Hot surfaces	1	2	3

Litter/Rubbish inside dwelling

None	Minor	Major
1	2	3

Security of dwelling

	High	Partly high	Partly low	Low	Very low	Appropriate
Main entrance door	1	2	3	4	5	
Other external doors	1	2	3	4	5	8
Accessible windows	1	2	3	4	5	8

Burglar alarm present?	Y	N
Door viewer present?	Y	N

Fire Safety

Escape route from bedrooms to exit of dwelling				
Protected route 1	Enclosed hall 2	Enclosed stair to living 3	Open plan stairs 4	Bedroom off/part of living 5

Accessibility

Flush threshold <15mm?	Y	N
Room on entrance level suitable for bedroom?	Y	N
Bathroom at entrance level?	Y	N
WC at entrance level?	Y	N
Change in floor level/trip steps at entrance level?	Y	N
Doorsets and circulation meet part M?	Y	N
Straight stairs with landings >900mm?	Y	N

Adaptations for disabled people

Ramps?	Y	N
Grab rails?	Y	N
Stair lift/thru floor lift?	Y	N
Hoists?	Y	N
Electrical modifications?	Y	N

Summary of internal condition

	Seriously defective	Defective	Acceptable	Satisfactory
Repair	1	2	3	4

Stability	1	2	3	4
-----------	---	---	---	---

Dampness	1	2	3	4
----------	---	---	---	---

	Unfit	Defective	Acceptable	Satisfactory
Ventilation	1	2	3	4
Clear cut?	Y	N		

Lighting	1	2	3	4
Clear cut?	Y	N		

Heating provision	1	2	3	4
Clear cut?	Y	N		

Type of evidence	Traps seen?	Chemicals seen?	Other visual evidence?	Told about it?
	Y N	Y N	Y N	Y N

Final fitness assessments

5. Interior – amenities

Drinking water supply pipework

Before stopcock?

After stopcock?

Pipework seen	Lead present	Mains?
Y N	Y N	Y N
Y N	Y N	

Action

Present Working		None	Minor repair	Major repair	Replace	Install
Y N	Y N	1	2	3	4	5
Y N	Y N	1	2	3	4	5
Y N	Y N	1	2		4	5
Y N	Y N	1	2		4	5
Y N	Y N	1	2	3	4	5
Y N	Y N	1	2	3	4	5
Y N	Y N	1	2	3	4	5
Y N	Y N	Seriously Defective Acceptable Satisfactory				
Y N	Y N					
Y N	Y N					
Y N	Y N					

Kitchen amenities

Cold water drinking supply?

Hot water?

Sink?

Fixed waste?

Cooking Provision

Cupboards?

Worktop?

Extractor fan?

Washing machine?

Tumble drier?

Refrigerator

Safety and Hygiene

Space	1	2	3	4
Layout	1	2	3	4
Cleanability	1	2	3	4

Seriously defective Defective Acceptable Satisfactory

Amenities last refurbished

Original	Pre 1960	1960s	1970s	1980s	1990s+	In progress
7	1	2	3	4	5	6

Final fitness assessment

Unfit	Defective	Acceptable	Satisfactory
1	2	3	4
Y	N		

Main Cooker fuel type

Electric	Oil	Solid Fuel	Mains Gas	LPG/Bottled Gas	Other
1	2	3	4	5	6

Adequate cooker space?

Adequate cupboard units?

Worktop (metres)

Under 1.5m	1.5-3m	Over 3m
1	2	3

Final fitness assessment

Unfit	Defective	Acceptable	Satisfactory
1	2	3	4
Y	N		

Actual date of refurbishment (if known)

Major	Minor	No
1	2	3

Bathroom amenities

Bath/shower?

Wash hand basin?

Extractor fan?

Safety and Hygiene

Action										Badly located?		No. of external surfaces	
Present Working		Hot & cold water	None	Minor repair	Major repair	Replace	Install	Floor			Y N		
Y	N	Y	N	1	2		4	5	B	B	G	G	
Y	N	Y	N	1	2		4	5	B	B	G	G	
Y	N												

Space	Seriously defective	Defective	Acceptable	Satisfactory	Superior
	1	2	3	4	5

Layout	1	2	3	4	
--------	---	---	---	---	--

Cleanability	1	2	3	4	
--------------	---	---	---	---	--

Final fitness assessment				
Bath/shower and wash hand basin	Unfit	Defective	Acceptable	Satisfactory
	1	2	3	4
Clear cut?	Y	N		

Seriously defective Defective Acceptable Satisfactory Superior

Final fitness assessment

Unfit	Defective	Acceptable	Satisfactory
1	2	3	4
Y	N		

Amenities last refurbished

Original	Pre 1960	1960s	1970s	1980s	1990s+	In progress
7	1	2	3	4	5	6

Actual date of refurbishment (if known)

Major	Minor	No
1	2	3

W.C. amenities

W.C.?

Safety and Hygiene

Action																			
Present Working		None	Minor repair	Major repair	Replace	Install	Floor			Internal?	Close to whb?	In bathroom?	If WC not in bathroom: Extractor fan?						
Y	N	Y	N	1	2	3	4	5	B	B	G	G	I	Y	N	Y	N	Y	N

Seriously defective Defective Acceptable Satisfactory Superior

Final fitness assessment

Unfit	Defective	Acceptable	Satisfactory
1	2	3	4
Y	N		

Amenities last refurbished

Original	Pre 1960	1960s	1970s	1980s	1990s+	In progress
7	1	2	3	4	5	6

Actual date of refurbishment (if known)

Major	Minor	No
1	2	3

Secondary amenities

Second kitchen?

Second bath/shower?

Second wash hand basin?

Second WC?

Third bath/shower?

Third wash hand basin?

Third WC?

Action									
Present	Working	Hot & cold water	None	Minor repair	Major repair	Replace	Floor		
Y N		Y N	1	2	3	4	B B	G G	
Y N	Y N	Y N	1	2	3	4	B B	G G	
Y N	Y N	Y N	1	2	3	4	B B	G G	
Y N	Y N		1	2	3	4	B B	G G	
Y N									
Y N									
Y N									
Y N	Summary of internal drainage								

In bedroom/en-suite

Y N	Y N	Y N
Y N	Y N	Y N
Y N	Y N	Y N

Seriously defective Defective Acceptable Satisfactory

Summary of internal drainage

1	2	3	4
---	---	---	---

5. Interior – heating and services

Primary services

	Action							Age	Modern consumer unit	PVC wiring	Modern sockets	Modern light fittings		
	Present?	Mains supply?	None	Minor repair	Major repair	Replace	Install							
Electrical system	Y	N	1	2	3	4	5		Y	N	Y	N	Y	N
Gas supply	Y	N	1	2	3	4								
Off-peak electricity	Y	N	Separate electric generator					Y	N					

SPACE HEATING

Primary heating

Present?	Primary heat source in winter? (Ask household)	Location of system			If communal, number of dwellings served
Y	N	If present?	Y	N	
		Individual	Estate	Block	Group of dwellings
		1	2	3	4

Primary heating group

Central heating (wet with rads)	Storage heaters	Warm air	Communal/ CHP	Electric ceiling/ underfloor	Room heaters
1	2	3	4	5	6

Primary heating fuel

Gas			Oil	Solid Fuel				Electricity				Communal		Dual	
Mains	Bulk LPG	Bottled		Coal	Smokeless fuel	Anthracite	Wood etc.	Economy	Home Energy	ECO Energy	Other	CHP/Waste heat	From boiler	Primary	Secondary
01	02	03	04	05	06	07	08	09	10	11	12	13	14		

Primary heating type

Standard	Back Boiler	Combination	Condensing	Condensing combi	Combined primary storage unit	No boiler	Unknown
1	2	3	4	5	6	7	9

FROM TABLE

Code

--	--	--

None Minor repair Major repair Replace Age

1	2	3	4	
---	---	---	---	--

Clarify with household

Primary heating code

Primary heating distribution

1	2	3	4	
---	---	---	---	--

If boiler driven system:

Boiler

Manufacturer name:															
Model name/number:															

Primary heating controls (non storage heaters) within the dwelling

	Present?		
Overall on/off	Y	N	U
Boiler thermostat	Y	N	U
Central timer	Y	N	U
Manual override on timer	Y	N	U
Room thermostat	Y	N	U
Radiator controls (manual)	Y	N	U
Thermostatic radiator valves (TRVs)	Y	N	U
Time and temperature zone control	Y	N	U
Delayed start thermostat	Y	N	U

Primary heating controls (storage heaters)

	Present?		
Manual charge control	Y	N	U
Automatic charge control	Y	N	U
Select type control	Y	N	U

Other heating

Present?	Primary heat source in winter? (Ask household)
Y	N
Y	N

Type of System

Mains gas fires									LPG	Electric heaters			Solid fuel heaters		Paraffin	Other
Open flue	Balanced flue	Fan assisted	Condensing	Live effect-sealed to chimney	Live effect-fan assisted flue	Decorative-open to chimney	Flueless	Unknown	Fixed heaters	Panel convector or radiant heater	Portable	Individual storage heater	Open fire	Stove/space heater	Portable heaters	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17

Action

None	Minor repair	Major repair	Replace	Age
1	2	3	4	

5. Interior – water heating

Hot water system Present?
☐ Y ☐ N

If present indicate all systems available

		Fuel								None	Minor repair	Major repair	Replace	Age
Boiler with central heating	Y N													
Boiler (water heating only)	Y N	Mains gas 01	Bulk LPG 02	Bottled gas 03	Oil 04	Coal 05	Smokeless 06	Anthracite 07	Wood 08	1	2	3	4	
Back boiler (water heating only)	Y N	Mains gas 01	Bulk LPG 02	Bottled gas 03	Oil 04	Coal 05	Smokeless 06	Anthracite 07	Wood 08	1	2	3	4	
Single immersion heater	Y N	Economy 7 09	HomeEnergy 10	Eco Energy 11	Other 12					1	2	3	4	
Dual immersion heater	Y N	Economy 7 09	HomeEnergy 10	Eco Energy 11	Other 12					1	2	3	4	
Separate instantaneous heater (Single point)	Y N	Mains gas 01	Bulk LPG 02	Bottled gas 03	Oil 04	Electric 09				1	2	3	4	
Separate instantaneous heater (Multi point)	Y N	Mains gas 01	Bulk LPG 02	Bottled gas 03	Oil 04	Electric 09				1	2	3	4	
Communal	Y N	CHP/waste 13	From boiler 14											
Other	Y N	Specify						Fuel from facing page						

Cylinder present? Present?
☐ Y ☐ N

If cylinder:

Size/volume

450 x 900mm (110 l)	450 x 1050mm (140 l)	450 x 1500mm (210 l)	450 x 1650mm (245 l)
1	2	3	4

Cylinder insulation

Foam Factory insulated	Jacket Loose jacket	Other	None
1	2	3	4

Water heating controls?

Present?

Time clock for water heating

☐ Y ☐ N ☐ U

Cylinder thermostat

☐ Y ☐ N ☐ U

Cylinder insulation thickness

0	12.5mm	25mm	38mm	50mm	80mm	100mm	150mm
1	2	3	4	5	6	7	8

6. Loft inspection

Inspect **all** houses and top floor flats

House/Bungalow 1	Top floor flat 2	Mid floor flat 3	Ground floor flat 4	Basement flat 5
GO TO NEXT SECTION				

Type of loft

Fully boarded 1	No boarding or partial boarding 2	Room(s) with permanent stairs 3	No loft - (flat or very shallow pitch) 4
GO TO NEXT SECTION			

Roof insulation above living space?

Yes 1	No 2	Don't know 9
-------	------	--------------

Type of loft insulation?

Mineral wool/ Fibre glass 1	Vermiculite beads 2	High performance Quilt 3	Rigid foam board 4	Not applicable 8	Don't know 9
-----------------------------	---------------------	--------------------------	--------------------	------------------	--------------

Approximate thickness of insulation

No insulation 77	25mm 01	50mm 02	75mm 03	100mm 04	125mm 05	150mm 06	200mm 07	250mm 08	300mm 09	>300mm 10	Don't know thickness 99
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Loft information from:

Inspection 1	Occupant 2	No information 9
--------------	------------	------------------

Any roof structure problems seen?

☐ Y ☐ N

If yes, describe and transfer to section 21

7. Household questionnaire

I would now like to ask you some questions about your home and the people who live in it.

Cooperated 1	Vacant 2	Refused 7	Reason(s)
-----------------	-------------	--------------	-----------

Q1 Is this accommodation your household's only residence?

Yes	1	Go to Q3
No	2	Go to Q2
Don't know	9	Go to Q3

Q2 Is this accommodation

Your household's main residence

A home used for holidays/weekends by you or your family (for four weeks or more per year)

A home used for holidays/weekends by holiday makers (i.e. let out on a commercial basis)

A home used for holidays/weekends by your family (less than 4 weeks), & also holiday makers (on a commercial basis)

A home used as an alternative to your main residence in connection with your job but not for holidays/weekends

A home used by a student of a university or college

Don't know

1	All go to Q3
2	
3	
4	
5	
6	
7	

(ASK ALL)

Q3 Do you (or your family) own this dwelling?

Own property outright	1	Go to Q4
Buying with mortgage or loan	2	Go to Q4
Co-Ownership	3	Go to Q4

or do you rent it?

Housing Executive tenant	4	Go to Q6 below
Private tenant	5	Go to Q6 below
Housing Association tenant	6	Go to Q6 below
Goes with job	7	Go to Q6 below
Other (Please specify)	8	Go to Q6 below

(ASK ALL OWNERS)

Q4 From whom did you buy this dwelling?

Bought from the Housing Executive/ Housing Association	1	Go to Q5a
Bought from previous private owner	2	Go to Q5a
Bought new from builder/developer	3	Go to Q5a
Inherited	4	Go to Q7
Other (Please specify)	5	Go to Q7

(ASK ALL TENANTS - HE, HA and Private Rented Sector)

Q6 When did you (or your family) first rent this dwelling? Year

--	--	--	--	--

Go to Q7

Q5a Is this dwelling your first home purchase (i.e. are you a first time buyer?)

Yes	1
No	2

Q5b Did you (or your family) rent this dwelling before buying it?

Yes	1
No	2

Go to Q5d

Q5c When did you (or your family) first rent this dwelling?

Year

--	--	--	--	--

Q5d When did you (or your family) buy this dwelling?

Year

--	--	--	--	--

Go to Q7

ASK ALL

Q7 Which of the following do you have in your home?

(Read out list and ring all that apply)

SURVEYOR DOUBLE CHECK DWELLING FOR CAVITY WALL INSULATION

Cavity wall insulation	Y	N	DK	N/A
Loft insulation	Y	N	DK	N/A
Double glazing	Y	N	DK	
Draught stripping on external doors	Y	N	DK	
Draught stripping on windows	Y	N	DK	
Low energy light bulbs	Y	N	DK	If YES, HOW MANY
Smoke alarm (battery)	Y	N	DK	If YES, HOW MANY
Smoke alarm (mains)	Y	N	DK	If YES, HOW MANY
Lead water pipes	Y	N	DK	
Mains drainage	Y	N	DK	If NO, ask TYPE
Digital TV(Digital Box)	Y	N	DK	
Home computer	Y	N	DK	
Access to the internet	Y	N	DK	

The next questions are about repairs and improvements to your home.

Q8a Have any repairs or improvements been carried out to your home in the past 5 years by you or a landlord (if applicable)?

Yes	1	Go to Q8b
No	2	Go to Q9
Don't know	8	Go to Q9

Q8b Which of the following repairs and/or improvements have been carried out by you or a landlord in the past 5 years? (Read out list and ring all that apply) SHOW CARD

Re-roofing/roof structure work	Y	N	DK	Providing or refitting bathroom	Y	N	DK
Structural repairs to walls, chimneys, foundations	Y	N	DK	Installing/replacing central heating	Y	N	DK
Repointing/rendering	Y	N	DK	Rearranging internal space/flat conversion	Y	N	DK
Replacing windows	Y	N	DK	Roof insulation	Y	N	DK
Replacing doors	Y	N	DK	Cavity wall insulation	Y	N	DK
Inserting/replacing damp proof course	Y	N	DK	Garage added	Y	N	DK
Internal plastering	Y	N	DK	Conservatory added	Y	N	DK
Putting in new floors	Y	N	DK	Extension (adding one or more rooms)	Y	N	DK
Electrical wiring	Y	N	DK	Combining two or more rooms	Y	N	DK
Providing or refitting kitchen	Y	N	DK	Other (please specify)			

Q8c Approximately how much did this work cost in total? (include VAT)

Less than £500	1	£5001-£10000	5	
£501-£1000	2	Over £10000	6	
£1001-£2000	3	DK	7	Go to Q9
£2001-£5000	4	Refused	8	Go to Q9

Q8d How much of the total cost of the work did you or your household pay?

All	1	Go to Q9
Some	2	Go to Q8e
None	8	Go to Q9

Q8e Approximately how much did this work cost your household (ie your contribution to the overall cost?)

Less than £500	1	£5001-£10000	5
£501-£1000	2	over £10000	6
£1001-£2000	3	DK	7
£2001-£5000	4	Refused	8

OWNERS GO TO Q9 RENTERS GO TO Q14

(ASK OWNERS)

Q9 Are you aware that grants may be available from the Housing Executive towards the cost of carrying out work to your property?

Yes	1	Go To Q10
No	2	Go To Q14

(ASK IF YES)

Q10 Have you applied for a grant from the Housing Executive in the last 5 years?

Yes	1	Go To Q11
No	2	Go To Q13
Don't know/Can't remember	9	Go To Q14

(ASK IF YES)

Q11 When did you apply?

Year

Q12 What was the outcome?

Still awaiting outcome	1	All go to Q14
Executive refused	2	
Didn't pursue grant	3	
Awarded grant and still doing work	4	
Awarded grant and work now completed	5	
Other (please specify)	6	

ASK IF RESPONDENT HAS NOT APPLIED FOR GRANT Do not prompt: (Ring all that apply)

Q13 Why not?... any other reasons?

Reason(s)

- No major work was required on the house
- Didn't think the type of work which was required on the house would be grant-aided
- Because of means testing
- Didn't want the inconvenience
- Heard that approval took too long
- Thought the cost of work would be too high relative to grant
- Previous grant - more than five years
- Other (please specify)

Y	N
Y	N
Y	N
Y	N
Y	N
Y	N
Y	N
Y	N

All
Go to
Q14

The next questions ask about heating in your home.

Q14a How satisfied are you with each of the following aspects of your heating system?

	Very Satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied
The type of heating	1	2	3	4	5
The cost of running your system	1	2	3	4	5
The amount of heat that you can get	1	2	3	4	5
The control over the level of heat	1	2	3	4	5
The ease of use of the system	1	2	3	4	5

Q14b SHOWCARD

Generally speaking, during winter when heating needs are greatest, when would you or someone else in your household have your heating on to stay warm? (For each option ring one only)

	Yes	No		Yes	No
All day/all the time	1	2	Weekday evenings	1	2
Weekday morning	1	2	Weekend daytimes	1	2
Weekday lunchtime	1	2	Weekend evenings	1	2
Weekday afternoon	1	2	Don't know	1	

ASK ALL

Q15 SHOWCARD

Which of these methods do you mainly use to pay for your electricity? (Ring one only)

Direct debit	1	Key pad meters (Home Energy Direct)	6
Budget payment	2	Fuel direct	7
Easysaver card	3	Standing order	8
Power card meter	4	Don't know	9
Cash or cheque	5		

Q16 SHOWCARD

REFER BACK TO SECTION 5 HEATING. ONLY ASK QUESTION 16 IF PRIMARY HEATING SERVICE IS MAINS GAS

Which of these methods do you mainly use to pay for your mains gas? (Ring one only)

Direct debit	1	Other (please specify)	5
Quarterly bill	2	-----	
Prepayment (key) meter	3	Not applicable	6
Budget payment system	4	Don't know	7

Public Attitudes

Q17a From what you have heard, can you tell me whether you think the following institutions are well run or not well run?

	Very well run	Well run	Not very well run	Not at all well run	Don't know
The DHSSPS (and public safety) in Northern Ireland	1	2	3	4	5
The Health Trusts in Northern Ireland	1	2	3	4	5
The Department of Education in Northern Ireland	1	2	3	4	5
The Northern Ireland Housing Executive	1	2	3	4	5
The Department of the Environment in Northern Ireland	1	2	3	4	5
The Department for Regional Development in Northern Ireland	1	2	3	4	5
The Department for Social Development in Northern Ireland	1	2	3	4	5

Now I would like to ask you some questions about the Housing Executive.

Q17b Did you know that the Housing Executive . . .

	Yes	No
... is responsible for the administration of Housing Benefit, to both Housing Executive and private sector tenants?	1	2
... provides home improvement grants to homeowners for improving and repairing dwellings and providing disabled facilities?	1	2
... is responsible for promoting energy efficiency in homes of all tenures?	1	2
... is responsible for the government's Supporting People programme in Northern Ireland?	1	2
... is responsible for the provision of serviced amenities for Travellers?	1	2
... is responsible for the homeless?	1	2
... each year draws up district housing plans in consultation with local councils?	1	2
...works with other bodies to reduce anti-social behaviour on its estates?	1	2
... is responsible for determining the housing need which guides the Housing Associations' programme of new homes in the social sector?	1	2
... produces an annual review of the housing market which analyses developments in all sectors of the market?	1	2

Q17c What is your opinion of the Housing Executive's performance in the following?

	Excellent	Very good	Average	Poor	Very poor	No opinion
providing good quality homes?	1	2	3	4	5	6
maintaining open spaces on estates?	1	2	3	4	5	6
maintaining and repairing its properties?	1	2	3	4	5	6
administering housing benefit to public and private sector tenants?	1	2	3	4	5	6
providing grant aid to qualifying home owners?	1	2	3	4	5	6
helping reduce anti-social behaviour?	1	2	3	4	5	6
working with other agencies to create a safe and pleasant environment?	1	2	3	4	5	6
strategic planning to meet future housing need?	1	2	3	4	5	6
meeting the needs of vulnerable people through the Supporting People programme?	1	2	3	4	5	6
meeting the needs of the homeless?	1	2	3	4	5	6
providing serviced sites for the Travelling community?	1	2	3	4	5	6
promoting energy efficiency in homes?	1	2	3	4	5	6
overall, the way the Housing Executive provides its services?	1	2	3	4	5	6

Q17d Thinking about the Housing Executive's public image do you think it is . . .

	Yes	No	No opinion
remote?	1	2	3
friendly?	1	2	3
caring?	1	2	3
inflexible?	1	2	3
supportive?	1	2	3
bureaucratic?	1	2	3
progressive?	1	2	3

Q17e Do you think the Housing Executive has an important role to play in promoting integrated housing in Northern Ireland?

Yes	1
No	2
Don't know	8

Q17f Do you think the Housing Executive has an important role to play in tackling racial and national prejudice in Northern Ireland?

Yes	1
No	2
Don't know	8

Q17g How concerned are you about community relations?

	Very concerned	Slightly concerned	Not very concerned	Not at all concerned
In your local area?	1	2	3	4
In Northern Ireland as a whole?	1	2	3	4

Q17h Which of the following statements applies to you (show card) (please select one only)?

I live in a mixed religion area and wish to continue doing so	1
I live in a mixed religion area but would prefer to live in a Protestant area	2
I live in a mixed religion area but would prefer to live in a Catholic area	3
I live in a Protestant area and wish to continue doing so	4
I live in a Protestant area but would prefer to live in a mixed religion area	5
I live in a Protestant area but would prefer to live in a Catholic area	6
I live in a Catholic area and wish to continue doing so	7
I live in a Catholic area but would prefer to live in a mixed religion area	8
I live in a Catholic area but would prefer to live a Protestant area	9
(Refusal)	88
(Don't know)	99

Q18 The next questions ask about the people who live in your home. I do not require names. I will start with the Household Reference Person.

Person	HRP	2	3	4	5	6	7	8	9	10
Age last birthday										
Gender	Male	1	1	1	1	1	1	1	1	1
	Female	2	2	2	2	2	2	2	2	2
Relationship to Household Reference Person	HRP	1								
	Partner (married)		2	2	2	2	2	2	2	2
	Partner (cohabiting)		3	3	3	3	3	3	3	3
	Partner (civil partnership)		4	4	4	4	4	4	4	4
	Child		5	5	5	5	5	5	5	5
	Parent		6	6	6	6	6	6	6	6
	Other Relative		7	7	7	7	7	7	7	7
	Lodger		8	8	8	8	8	8	8	8
	Other non-relative		9	9	9	9	9	9	9	9
Marital Status	Single (never married)	1	1	1	1	1	1	1	1	1
	Married (first marriage)	2	2	2	2	2	2	2	2	2
	Remarried	3	3	3	3	3	3	3	3	3
	Civil Partnership	4	4	4	4	4	4	4	4	4
	Separated (but still legally married)	5	5	5	5	5	5	5	5	5
	Divorced (but not legally remarried)	6	6	6	6	6	6	6	6	6
	Widowed (but not legally remarried)	7	7	7	7	7	7	7	7	7
	Co-habiting	1	1	1	1	1	1	1	1	1
Family Unit (See Surveyor Notes above)		1								
PERSONS AGED 16+ ONLY										
Employment Status:	Self-Employed	01	01	01	01	01	01	01	01	01
	Working Full Time	02	02	02	02	02	02	02	02	02
	Working Part Time	03	03	03	03	03	03	03	03	03
	Not working - seeking work	04	04	04	04	04	04	04	04	04
	Not working - not seeking work	05	05	05	05	05	05	05	05	05
	Retired from work - excludes looking after family home	06	06	06	06	06	06	06	06	06
	Student (Further/Higher Education)	07	07	07	07	07	07	07	07	07
	Perm Sick/Disabled	08	08	08	08	08	08	08	08	08
	Looking after family/home	09	09	09	09	09	09	09	09	09
	Other (including schoolchild)	10	10	10	10	10	10	10	10	10
How does the person usually travel to work? (16+ and working) (Tick one box for the longest part, by distance, of the usual journey to work)										
	Work mainly at or from home	01	01	01	01	01	01	01	01	01
	Train	02	02	02	02	02	02	02	02	02
	Bus, minibus or coach (public or private)	03	03	03	03	03	03	03	03	03
	Motorcycle, scooter or moped	04	04	04	04	04	04	04	04	04
	Driving a car or van	05	05	05	05	05	05	05	05	05
	Passenger in car or van (Include sharing driving)	06	06	06	06	06	06	06	06	06
	On foot	07	07	07	07	07	07	07	07	07
	Other	08	08	08	08	08	08	08	08	08
	Not applicable (does not work)	09	09	09	09	09	09	09	09	09
Does the person have any long-term illness, health problem or disability which limits his/her daily activities or the work he/she can do? (Include problems which are due to old age.)										
	Yes, has a health problem or disability which limits activities	1	1	1	1	1	1	1	1	1
	Has no such health problems	2	2	2	2	2	2	2	2	2
Does anyone in the household use the following aids indoors or outdoors? (For each person code the highest number used by that person)										
	No aids	01	01	01	01	01	01	01	01	01
	Stick	02	02	02	02	02	02	02	02	02
	Crutches	03	03	03	03	03	03	03	03	03
	Zimmer Frame	04	04	04	04	04	04	04	04	04
	Self-propelled wheel chair	05	05	05	05	05	05	05	05	05
	Wheel chair pushed by another person	06	06	06	06	06	06	06	06	06
	Battery powered scooter	07	07	07	07	07	07	07	07	07
	Adapted vehicle	08	08	08	08	08	08	08	08	08
	Confined to bed	09	09	09	09	09	09	09	09	09
To which of these ethnic groups does the person belong?										
	White	01	01	01	01	01	01	01	01	01
	Chinese	02	02	02	02	02	02	02	02	02
	Irish Traveller	03	03	03	03	03	03	03	03	03
	Indian	04	04	04	04	04	04	04	04	04
	Pakistani	05	05	05	05	05	05	05	05	05
	Bangladeshi	06	06	06	06	06	06	06	06	06
	Black Caribbean	07	07	07	07	07	07	07	07	07
	Black African	08	08	08	08	08	08	08	08	08
	Black Other	09	09	09	09	09	09	09	09	09
	Mixed ethnic group (please specify)	10	10	10	10	10	10	10	10	10
	Any other ethnic group (please specify)	11	11	11	11	11	11	11	11	11
What does each person consider their nationality/citizenship to be?										
	British	01	01	01	01	01	01	01	01	01
	Irish	02	02	02	02	02	02	02	02	02
	Portugese	03	03	03	03	03	03	03	03	03
	Latvian	04	04	04	04	04	04	04	04	04
	Lithuanian	05	05	05	05	05	05	05	05	05
	Polish	06	06	06	06	06	06	06	06	06
	Nigerian	07	07	07	07	07	07	07	07	07
	Other (please specify)	08	08	08	08	08	08	08	08	08

Enter person number of respondent	
Enter total number of people in the household	
Enter total number of adults (16 or over) in the household	
Enter number of family units in the household	
Enter number of children in the household	

OCCUPATION

Q19a What is the Household Reference Person's present/most recent (last) job?

Record full title of main job: (If job title is ambiguous probe for more details. If civil servant stated ask for department/division. If a manager ask how many people he/she manages.) If the person is retired ask for main job at retirement. If the person is of working age and not working, only ask for previous job if he/she has worked in last 5 years.

If HRP is currently working Ask:

Q19b Where is your place of work located? _____

If HRP reports to a depot, write in depot location. _____

(Tick as appropriate)

Mainly work at or from home ☐ No fixed place ☐

Q19c Do you have unpaid caring responsibilities?

Yes	1	Go to q19d
No	2	Go to q20a
Refused	3	

Q19d If Yes, do you live with the person you are caring for?

N/A	0
Yes	1
No	2
Refused	3

Q20a Does the Household Reference Person or partner (if applicable) receive any of the following benefits? (If no partner code N/A). (Read out list and ring all that apply) (SHOW CARD)

BENEFITS/TAX CREDITS

	Household Reference Person				Partner				
	Yes	No	Ref	D/K	Yes	No	Refuse	N/A	D/K
Child Benefit	1	2	7	9	1	2	7	0	9
A Disability Benefit	1	2	7	9	1	2	7	0	9
Incapacity Benefit	1	2	7	9	1	2	7	0	9
Housing Benefit	1	2	7	9	1	2	7	0	9
Income Support	1	2	7	9	1	2	7	0	9
Jobseeker's Allowance	1	2	7	9	1	2	7	0	9
Retirement Pension (inc works pension)	1	2	7	9	1	2	7	0	9
Working Tax Credit	1	2	7	9	1	2	7	0	9
Child Tax Credit	1	2	7	9	1	2	7	0	9
Pension Credit	1	2	7	9	1	2	7	0	9
Rates Rebate (Owner Occupiers only)	1	2	7	9	1	2	7	0	9
Any others	1	2	7	9	1	2	7	0	9

(if yes, complete Q20b)

(if yes, complete Q20c)

Q20b Can I just check, how much does the Household Reference Person or partner (if applicable) receive from Housing Benefit each week? Code exact amount to nearest £, if possible, if not known, probe and code estimate. Probe for weekly period, if other period given, calculate as weekly.

£

Estimate 1

Don't know 2

Refused 3

Q20c ASK OWNER OCCUPIERS ONLY

Can I just check, how much does the Household Reference Person or partner (if applicable) receive from Rates Rebate each week? Code exact amount to nearest £, if possible, if not known, probe and code estimate. Probe for weekly period, if other period given, calculate as weekly.

£

Estimate 1

Don't know 2

Refused 3

Q21 Now I would like to ask you some questions about your income. Answers of individual respondents will not be disclosed to anyone outside the Housing Executive's Research Unit. No one outside the Research Unit is able to access this information. [SHOW CARD]. What is the total income before tax and other deductions of yourself and your partner (if you have one)? Please include all income from employment, benefits (including Housing Benefit), or other sources. (Ring one only) PLEASE USE SHOWCARD WITH WEEKLY, MONTHLY AND ANNUAL INCOME BANDS

Less than £60 per week	Less than £250 per month	Less than £3,000 per annum	1
£60-£79 per week	£251-£330 per month	£3,000 to £3,999 per annum	2
£80-£99 per week	£331-£419 per month	£4,000 to £4,999 per annum	3
£100-£119 per week	£420-£500 per month	£5,000 to £5,999 per annum	4
£120-£130 per week	£501-£580 per month	£6,000 to £6,999 per annum	5
£131-£150 per week	£581-£669 per month	£7,000 to £7,999 per annum	6
£151-£170 per week	£670-£750 per month	£8,000 to £8,999 per annum	7
£171-£190 per week	£751-£830 per month	£9,000 to £9,999 per annum	8
£191-£210 per week	£831-£919 per month	£10,000 to £10,999 per annum	9
£211-£230 per week	£920-£1,000 per month	£11,000 to £11,999 per annum	10
£231-£250 per week	£1,001-£1,080 per month	£12,000 to £12,999 per annum	11
£251-£269 per week	£1,081-£1,169 per month	£13,000 to £13,999 per annum	12
£270-£289 per week	£1,170-£1,250 per month	£14,000 to £14,999 per annum	13
£290-£310 per week	£1,251-£1,330 per month	£15,000 to £15,999 per annum	14
£311-£389 per week	£1,331-£1,669 per month	£16,000 to £19,999 per annum	15
£390-£580 per week	£1,670-£2,500 per month	£20,000 to £29,999 per annum	16
£581-£769 per week	£2,501-£3,330 per month	£30,000 to £39,999 per annum	17
£770-£960 per week	£3,331-£4,169 per month	£40,000 to £49,999 per annum	18
£961 or more per week	£4,170 or more per month	£50,000 or more per annum	19
Refused	Refused	Refused	99
Don't know	Don't know	Don't know	88

Q22 How would you describe the religious make-up of this household? (Ring one only)

Protestant	Catholic (RC)	Mixed religion (Protestant/Catholic)	Other	None	D/K	Refused
1	2	3	4	5	8	9

Q23 How would you describe the religious make-up of this estate/area? (Ring one only)

Totally Protestant	Mainly Protestant	Mixed Protestant/Catholic	Mainly Catholic (RC)	Totally Catholic (RC)	D/K	Refused
1	2	3	4	5	8	9

Q24 How many cars or vans are owned, or available for use, by one or more members of your household? (include any company car or van if available for private use). (Ring one only)

None	0
One	1
Two	2
Three	3
Four or more (please write in)	

Q25a What was your usual address one year ago?

The address shown on the front of the form

1

Go to Q26

No usual address one year ago

2

Go to Q26

Elsewhere please write in below (include postcode)

3

Go to Q25b

Number and street/road name

[illegible]

Town

[illegible]

County

[illegible]

Country

[illegible]

Go to Q25b

Q25b Was this property (Ring one only)

Your parental home?

1

Own home

- Owner occupied?

2

- private rented?

3

- NIHE?

4

- housing association?

5

- Other?

6

Q26 Construction date (clarify with household) (Interviewer please note this question is used for energy model)

Pre 1930	1930-1965	1966-1976	1977-1981	1982-1990	Post 1990	Unknown	Specify year	Surveyor Estimate	
1	2	3	4	5	6	7	<input type="text"/>	<input type="text"/>	Y N

Q27 As part of the Housing Executive's quality assurance role of the House Condition Survey a small number of respondents will be selected to ask for their views on how the survey was conducted. Would you be willing to take part in this? (Ring one only)

Yes	1	If Yes, go to Q28
Yes (in certain circumstances)	2	
No	3	

INTERVIEWER INSTRUCTION

If YES, in certain circumstances code main conditions to any follow-up survey.

Contact household beforehand	Y
Only at a convenient time	Y
Someone else (eg carer) needs to be there	Y
Other (please specify)	Y
<hr/>	
N/A	0

Q28 Would it be possible to have your telephone number, so the Housing Executive can contact you. (Ring one only)

Yes	1
No	2
No phone	3
N/A	0

IF YES, RECORD TELEPHONE NUMBER

Code Telephone number

<input type="text"/>	<input type="text"/>
----------------------	----------------------

Q29 It is helpful to have a contact name to ask for.

Record as much of this as respondent will allow (Refusal enter 0)

NAME OF RESPONDENT

Title

Forename

Surname

<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------

Q30 If access to email, can I have your email address? (please refer back to question 7 page 8)

Y	Record email address:
N	
N/A	

8. Details of flat

IDENTIFY MODULE NOW

Plan of flat

Draw plan of flat within module and show if measurements have been rectangularised

Locate flat in module						Back							
Left													Right
						Front							

Tenths of wall exposed

(Columns add up to 10)

To outside air

To internal accessways

To other flats

Front wall	Back wall	Left wall	Right wall
<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>

Entry floor to dwelling proper

Basement B B	Ground G G	Specify <div><div></div><div></div></div>	Unknown 99
-----------------	---------------	--	---------------

Private entry stair

None 1	Up 2	Down 3
-----------	---------	-----------

Dimensions of flat (internal & rectangularised)

No. of floors in flat

Dimensions same as module

Y N

If Y, record at section 13

Main floor

Next floor

Level (B, G, 1, 2 etc)

B B G G

N N B B G G

Width (metres)

•

S S S •

Depth (metres)

•

S S S •

9. Common parts of flat surveyed: external to dwelling but within/attached to module

Common parts exist?

Y	N
---	---

If No, go to Section 10

Does access/area exist?

Balcony/Deck/Corridor/Lobby

Spacious/Average/Tight

Enclosed?

In module?

Working?

Floors/ treads (answer in sq m)

Faults?

Modify structure

Renew surface

Repair surface

Walls (answer in sq m)

Faults?

Modify structure

Renew surface

Repair surface

Repaint surface

Ceilings/soffits (answer in sq m)

Faults?

Modify structure

Renew surface

Repair surface

Repaint surface

Access doors/screens (answer in numbers)

Faults?

Replace

Repair/rehang

Repaint

Accessway windows (answer in numbers)

Faults?

Replace

Repair

Repaint

Accessway lighting (answer in numbers)

Faults?

Replace light fittings

Replace light switches

Balustrades (answer in metre lengths)

Faults?

Replace

Repair

Defects

Ventilation

Disrepair

Structural stability

Damp

Drainage

Artificial lighting

Rats and Mice

Evidence of mice

Evidence of rats

Accessway		
Main horizontal of typical/upper level	Stairway on typical/upper level	Main entrance to module
Y N	Y N	Y N
Y N	Y N	Y N
Y N	Y N	Y N

Y N	Y N	Y N

Y N	Y N	Y N

Y N	Y N	Y N

Y N	Y N	Y N

Y N	Y N	Y N

Y N	Y N	Y N

Y N	Y N	Y N

Y	Y	Y
---	---	---

Y	Y	Y
Y	Y	Y
Y	Y	Y
Y	Y	Y
Y	Y	Y

Lifts	Refuse chutes
Y N	Y N
Y N	Y N
Y N	Y N

Security of module

Type of access

Concierge system

Door entry system

Multiple access	Single access	Restricted access
1	2	3
Present?	Working?	In module?
Y N	Y N	Y N
Y N	Y N	Y N

Fire safety of flat surveyed

Escape route from flat surveyed to final exit from building

Flat is final exit	Through another flat	Through flat and common areas	Through common areas	Not known
1	2	3	4	9

Fire precautions

Protection to stairs/lobbies?

Self closing fire doors?

Fire extinguishers?

Emergency lighting?

Sign posting?

Safe practices?

Alternative route?

Alarm system?

Present	Action			
	None	Minor	Major	Renew
Y N	1	2	3	4
Y N	1	2	3	4
Y N	1	2	3	4
Y N	1	2	3	4
Y N	1			4
Y N				
Y N				
Y N	1	2	3	4

Fire Safety of Common areas

Distance of Travel

State of Repair

Type of finishes

Seriously defective	Defective	Acceptable	Satisfactory
1	2	3	4
1	2	3	4
1	2	3	4

Overall assessment of fire safety of flat

(include internal assessment)

Seriously defective	Defective	Acceptable	Satisfactory
1	2	3	4

Health and Safety (of common areas)

Falls on stairs

Falls on the level

Falls between levels

Fire

Hot surfaces

Significantly lower than average	Average risk	Significantly higher than average
1	2	3
1	2	3
1	2	3
1	2	3
1	2	3

Contribution to problems (within survey module)

Normal wear and tear

Inadequate maintenance

Inappropriate use

Poor design/specification

Vandalism

Graffiti

Litter/rubbish

None	Minor	Major
1	2	3
1	2	3
1	2	3
1	2	3
1	2	3
1	2	3

Final fitness assessment (of common parts affecting flat surveyed)

Unfit	Defective	Acceptable	Satisfactory
1	2	3	4
Y	N		

Summary of condition of common parts (affecting flat surveyed)

Seriously defective	Defective	Acceptable	Satisfactory
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4

Type of evidence: Traps seen?

21

Other visual evidence?

Chemicals seen?

Told about it?

Y N	Y N
Y N	Y N

10. Number of flats in module

This section is critical. Make every attempt to record correct number of flats in module

Number of flats
in module

Specify	Unknown
<input type="text"/>	999

Obtained from	Counting	Door numbers	Estimate	Warden/household
	Y	Y	Y	Y

Double check the number of flats against what you have defined as your module in Section 8 before continuing.

Level of lowest flat

Basement	Ground floor	Floor	Unknown
B	G	<input type="text"/>	9

Use of ground floor/basement

Use of ground floor

Dwelling only	Dwelling and services	Services only	Dwelling and non residential	Non residential only	Dwelling and void	Other
1	2	3	4	5	6	7

Use of basement

No basement	Dwelling only	Dwelling and services	Services only	Dwelling and non residential	Non residential only	Dwelling and void	Other
8	1	2	3	4	5	6	7

Non residential use

IF any non residential:
percentage of total floor area of
module in non residential use

No non residential				Specify %	Unknown		
88				<input type="text"/>	99		

IF 'dwelling with non residential':
non residential use

Not 'dwelling with non residential'	Shop/business	Office	Industrial/Institutional	Surgery	Public house	Hotel	Other (specify)
8	1	2	3	4	5	6	7 <input type="text"/>

If 'dwelling with non-residential':

Does the non-residential use include the handling/processing of food for commercial purposes?

Y	N	U
---	---	---

Other flats in module

Are they?

Survey flat is only one in module	Mostly same as survey dwelling	Mostly small flats	Mostly large flats	Mixture of small/large flats	Mixture of flats/maisonettes	Unknown
8	1	2	3	4	5	9

Approximate number of
vacant flats in module

Survey flat is only one in module	Specify	Unknown
888	<input type="text"/>	999

Location of flat

Top floor	Mid-floor	Ground floor	Heat loss floor (not ground floor)
1	2	3	4

11. Shared facilities and services

Do shared facilities/services exist? Y N **IF NO, GO TO SECTION 12**

Stores and common rooms	Location				Action		
	Present?		Integral	Not Integral	None	Minor	Major
Tenant stores	Y N	1	2	1	2	3	
Bin stores	Y N	1	2	1	2	3	
Paladin stores	Y N	1	2	1	2	3	
Laundry	Y N	1	2	1	2	3	
Drying room	Y N	1	2	1	2	3	
Community room	Y N	1	2	1	2	3	
Warden/caretaker office	Y N	1	2	1	2	3	

Communal parking facilities	Location				Action		
	Present?		Integral	Not Integral	None	Minor	Major
Garages	Y N	1	2	1	2	3	
Multi storey parking	Y N	1	2	1	2	3	
Underground parking	Y N	1	2	1	2	3	
Roof parking	Y N	1	2	1	2	3	
Other covered parking	Y N	1	2	1	2	3	
Open air parking bays	Y N			1	2	3	

Contribution to problems in condition (outside survey module)

	None	Minor	Major
Normal wear and tear	1	2	3
Inadequate maintenance	1	2	3
Inappropriate use	1	2	3
Poor design/specification	1	2	3
Vandalism	1	2	3
Graffiti	1	2	3
Litter/rubbish	1	2	3

Accessibility

Number of steps from pavement to entrance of module

Level access	No step but slope >1:120	1 step	2 step	3 or more steps
8	7	1	2	3
Space for ramp				
Not applicable	8	Yes 1	No 2	

Is the path firm and even?

Y N

Is entrance adequately lit?

Y N

Is entrance covered?

Y N

Health and Safety of shared areas

	Significantly lower risk than average	Average risk	Significantly higher risk than average
Falls on stairs/steps	1	2	3
Falls on the level	1	2	3
Falls between levels	1	2	3

Common/electrical services

	Action			
	Present?	None	Minor	Major
CCTV	Y N	1	2	3
TV reception	Y N	1	2	3
Lightning conductors	Y N	1	2	3
Communal heating	Y N	1	2	3
Burglar alarm system	Y N	1	2	3
External lighting	Y N	1	2	3

Surfaces and fences

	Action			
	Present?	None	Minor	Major
Drying areas	Y N	1	2	3
Children's play areas	Y N	1	2	3
Unadopted estate roads	Y N	1	2	3

Landscaping

	Action			
	Present?	None	Minor	Major
Paths	Y N	1	2	3
Walls/fences	Y N	1	2	3
Hard landscaping	Y N	1	2	3
Grass/planting	Y N	1	2	3

Design of landscaping

ANSWER IF SHARED LANDSCAPING PRESENT (Y IN ANY OF 4 BOXES ABOVE)

	Yes	No	Not Applicable
Paths			
At least 900mm wide?	1	2	8
Gradients gentler than 1 in 12?	1	2	8
Protected from adjacent drops?	1	2	8
Walls/fences			
Conceal bins and/or parking?	1	2	8
Hard landscaping			
Varied?	1	2	8
Conceal bins and/or parking?	1	2	8
Cost effective to maintain?	1	2	8
Grass/planting			
Varied?	1	2	8
Conceal bins and/or parking?	1	2	8
Cost effective to maintain?	1	2	8
Includes trees?	1	2	8
Distance from front/back door to grassy area	8	1	2
Size of grassy area	8	1	2

12. House/module shape

Location of additional part	Draw plan							Back						
	Left								Right					
							Front							
	No additional part	Front elevation			Back elevation			Left elevation			Right elevation			Unknown
		Left	Centre	Right	Left	Centre	Right	Front	Centre	Back	Front	Centre	Back	
	77	01	02	03	04	05	06	07	08	09	10	11	12	99

Attic/basement in house/module

Attic only 1	Basement only 2	Both 3	Neither 4	Unknown 9
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Entry floor to house/module

Basement B	Ground G	Specify <input style="width: 20px;" type="text"/>	Unknown 9
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13. External dimensions of house/module

	No. of floors	Level (B, G, 1, 2 etc)	Width (metres)	Depth (metres)
Main structure	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> . <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> . <input style="width: 30px;" type="text"/>
		<input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/>
		<input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/>
Additional part	<input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> N <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> . <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> . <input style="width: 30px;" type="text"/>
		<input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> B <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/> G <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/> S <input style="width: 30px;" type="text"/>
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14. Material and construction of house/module (code one type only)

Code	Material	Construction	Type	
01	Masonry	Boxwall	Solid	
02	Masonry	Boxwall	Cavity	
03	Masonry	Crosswall		
04	Concrete	Boxwall	In-situ	
05	Concrete	Boxwall	Precast panel <1m wide	
06	Concrete	Boxwall	Precast panel >1m wide	
07	Concrete	Crosswall	In-situ	
08	Concrete	Crosswall	Precast panel	
09	Concrete	Frame	In-situ	
10	Concrete	Frame	Precast	
11	Timber	Frame	Pre 1919	
12	Timber	Frame	Post 1919	
13	Metal	Frame		
14	Other, please specify			

Proprietary system?

If Yes, name: _____

15. Improvements/alterations

(to the house/module since original construction) Code most recent (or most significant) clarify with household

	None	Pre 1945	1945-64	1965-84	1985-1990	1991-1995	1996-2006	In progress
Conversion to more than one dwelling	1	2	3	4	5	6	7	8
Conversion to HMO use	1	2	3	4	5	6	7	8
Conversion from non-residential use	1	2	3	4	5	6	7	8
Two or more dwellings combined	1	2	3	4	5	6	7	8
Complete refurbishment/modernisation	1	2	3	4	5	6	7	8
Rearrangement of internal space	1	2	3	4	5	6	7	8
Extension added for amenities	1	2	3	4	5	6	7	8
Extension added for living space	1	2	3	4	5	6	7	8
Alteration of external appearance	1	2	3	4	5	6	7	8
Over-roofing	1	2	3	4	5	6	7	8
Over-cladding	1	2	3	4	5	6	7	8
Structure replaced	1	2	3	4	5	6	7	8
Loft conversion	1	2	3	4	5	6	7	8

16. Elevation features

Front face			Left face			Is part of face exposed?			Right face			Back face		
Y N			Y N						Y N			Y N		
<input type="checkbox"/>			<input type="checkbox"/>			Solar panels (number)			<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>			<input type="checkbox"/>			Valley gutters (number)			<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>			<input type="checkbox"/>			Gables (tenths)			<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>			<input type="checkbox"/>			Parapets (tenths)			<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>			<input type="checkbox"/>			Mono supporting walls (tenths)			<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>			<input type="checkbox"/>			Base walls (tenths)			<input type="checkbox"/>			<input type="checkbox"/>		
Y N			Y N			Cavity wall insulation?			Y N			Y N		
Y N			Y N			External insulation?			Y N			Y N		
window	void	wall	window	void	wall	Fenestration (tenths)			window	void	wall	window	void	wall
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. Specification of views

Back view				10/10 attached				Not seen																												
B				A				N																												
Tenths attached																																				
<input type="checkbox"/>																																				
BACK FACE																																				
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FRONT FACE																																				
Front view																																				
F																																				
Tenths attached																																				
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18. Exterior – of house/module

FRONT VIEW

BACK VIEW

Chimney stacks

(Number)

Masonry	Other		Masonry	Other
Y N	Y N	Present?	Y N	Y N
		Number		
		Age		
Y N	Y N	Faults?	Y N	Y N
		Rebuild		
		Part rebuild		
		Repoint/refix pot		
		Leave		
Y N	Y N	Urgent?	Y N	Y N
		Replacement period		

FRONT VIEW

Roof structure

(Tenths of area)

BACK VIEW

Pitched	Mansard	Flat	Chalet		Pitched	Mansard	Flat	Chalet
				Tenths of area				
				Age				
Y N U	Y N U	Y N U	Y N U	Faults?	Y N U	Y N U	Y N U	Y N U
				Replace				
				Strengthen				
				Leave				
Y N	Y N	Y N	Y N	Urgent?	Y N	Y N	Y N	Y N
				Replacement period				

FRONT VIEW

Roof covering

(Tenths of area)

BACK VIEW

Natural slate/stone/shingle	Man made slate	Clay tile	Concrete tile	Asphalt	Felt	Glass/metal/laminate	Thatch		Natural slate/stone/shingle	Man made slate	Clay tile	Concrete tile	Asphalt	Felt	Glass/metal/laminate	Thatch
								Tenths of area								
								Age								
Y N U	Y N U	Y N U	Y N U	Y N U	Y N U	Y N U	Y N U	Faults?	Y N U	Y N U	Y N U	Y N U	Y N U	Y N U	Y N U	Y N U
								Renew								
								Isolated repairs								
								Leave								
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Urgent?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
								Replacement period								

FRONT VIEW

Roof features and drainage

(Tenths of lengths)

BACK VIEW

Fascias	Valley gutters/flashings	Gutters/down-pipes	Stacks/wastes	Party parapets		Fascias	Valley gutters/flashings	Gutters/down-pipes	Stacks/wastes	Party parapets
Y N	Y N	Y N	Y N	Y N	Present?	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Faults?	Y N	Y N	Y N	Y N	Y N
					Replace					
					Repair					
					Leave					
Y N	Y N	Y N	Y N	Y N	Urgent?	Y N	Y N	Y N	Y N	Y N
					Replacement period					

18. Exterior – of house/module (continued)

FRONT VIEW

Masonry cavity	Masonry single leaf	9" solid	>9" solid	In situ concrete	Concrete panels	Timber panels	Metal sheet
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

FRONT VIEW

Masonry pointing	Non-masonry natural	Rendered	Shiplap timber	Tile hung	Slip/tile faced	Wood/metal/plastic panels
Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N

BACK VIEW

Wall structure (Tenths of area)

Net tenths of area

Age

Faults?

Rebuild/renew

Repair

Leave

Urgent?

Replacement period

Masonry cavity	Masonry single leaf	9" solid	>9" solid	In situ concrete	Concrete panels	Timber panels	Metal sheet
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

BACK VIEW

Wall finish (Tenths of area)

Net tenths of area

Age

Faults?

Render

Renew/repoint

Isolated repairs

Paint

Leave

Urgent?

Replacement period

Masonry pointing	Non-masonry natural	Rendered	Shiplap timber	Tile hung	Slip/tile faced	Wood/metal/plastic panels
Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N

FRONT VIEW

Bays		Dormers		Porches	Conservatories	Balconies
Single storey	Multi storey	Standard	Roof extension		(Survey dwelling)	(Survey dwelling)
Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N

Dormers and bays

(Number)

Present?

Number

Age

Faults?

Rebuild roof and walls

Rebuild roof only

Rebuild wall only

Major repairs

Minor repairs

Demolish

Leave

Urgent?

Replacement period

BACK VIEW

Bays		Dormers		Porches	Conservatories	Balconies
Single storey	Multi storey	Standard	Roof extension		(Survey dwelling)	(Survey dwelling)
Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N
Y N	Y N	Y N	Y N	Y N	Y N	Y N

FRONT VIEW

Physical barrier	Injection DPC	None
Y N U	Y N U	Y N U
Y N	Y N	Y N

Damp proof course

(Tenths of length)

Tenths of length

Faults?

Replace/Install

Leave

Urgent?

Replacement period

BACK VIEW

Physical barrier	Injection DPC	None
Y N U	Y N U	Y N U
Y N	Y N	Y N

18. Exterior – of survey dwelling

FRONT VIEW							BACK VIEW						
Single-glazed				Double-glazed			Single-glazed				Double-glazed		
Wood casement	Wood sash	UPVC	Metal	Wood	UPVC	Metal	Wood casement	Wood sash	UPVC	Metal	Wood	UPVC	Metal
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FRONT VIEW							BACK VIEW							
Single-glazed			Double-glazed				Single-glazed			Double-glazed				
Wood	UPVC	Metal	Wood	UPVC	Metal	Wood	UPVC	Metal	Wood	UPVC	Metal	Wood	UPVC	Metal
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Exterior – plot of survey dwelling (not shared plots)

Private plot exists? ☐ Y ☐ N **IF NO**, Go to Section 19

[illegible]

19. Around the house/module

Underground drainage

Drainage system	Mains 1	Septic tank 2	Cess pool 3	Private sewage system 4	Unknown 9
-----------------	------------	------------------	----------------	----------------------------	--------------

Faults?	Y N
Blockage	Y
Other (specify)	Y

Final fitness assessments
 (Refer back to relevant sections for interim assessments
 pages 3 + 4 including common parts for flats)

	Unfit	Defective	Acceptable	Satisfactory
Drainage (interior & exterior)	1	2	3	4
Clear cut?	Y	N		
Disrepair (interior and exterior)	1	2	3	4
Clear cut?	Y	N		
Dampness (interior & exterior)	1	2	3	4
Clear cut?	Y	N		

Rats and mice outside house/module

Evidence of mice?	Y N	Type of evidence:	Traps seen?	Chemicals?	Other visual evidence?	Told about it?
Evidence of rats?	Y N		Y N	Y N	Y N	Y N
Pets/livestock kept outside?	Y N	Litter/rubbish on plot	None 1	Minor 2	Major 3	

Parking provision of survey dwelling

Ask Household

	Present?		On plot?		Car spaces	None	Minor	Major	Renew	Demolish
	Y	N	Y	N						
Integral garage	Y	N	Y	N		1	2	3	4	
Attached garage	Y	N	Y	N		1	2	3	4	5
Detached garage	Y	N	Y	N		1	2	3	4	5
Carport	Y	N	Y	N		1	2	3	4	5
Designated parking space(s)	Y	N	Y	N		1	2	3	4	5

Street parking	Adequate 1	Inadequate 2	None 3
----------------	---------------	-----------------	-----------

Who owns garage/parking?

Household	H. Ex./ H. Assoc.	Other Landlord	Other
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4

Exposure

Is the dwelling in an exposed position?	Not exposed 1	Slightly exposed 2	Exposed 3	Very exposed 4
--	------------------	-----------------------	--------------	-------------------

20. Block

Number of houses/modules in block	Detached house/module 01	Semi detached house/module 02	Specify number <div style="border: 1px solid black; width: 30px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div>	More than 50 75
-----------------------------------	-----------------------------	----------------------------------	---	--------------------

Approximate number of seriously defective houses/modules in block	House/module is block 888	Specify <div style="border: 1px solid black; width: 30px; height: 20px; display: flex; align-items: center; justify-content: center;">1</div>
---	------------------------------	--

Survey block/building in context with surroundings	Y N
--	-----

Situation of block	Major trunk road 1	Main road 2	Side road 3	Cul de sac/crescent 4	Private road 5	Unmade/no road 6
--------------------	-----------------------	----------------	----------------	--------------------------	-------------------	---------------------

Road has traffic calming measures?	Y N
------------------------------------	-----

21. Structural defects

Any structural defects present? ☐ Y ☐ N **IF YES, DESCRIBE BELOW**
IF NO, GO TO FINAL FITNESS ASSESSMENT AT BOTTOM OF PAGE

Defect	Action required?	Monitor/ examine further?	Action required on assumption problem is progressive								
			Action described elsewhere on form?	Any additional action required that is not accounted for elsewhere							
				Treatment?	Extent						
Roof sagging	Y	Y N	Y N	Y N							
Roof humping	Y	Y N	Y N	Y N							
Roof spreading	Y	Y N	Y N	Y N	Tie-ing	Y N	Number: <input type="text"/>				
					Other	Y N	Specify <input type="text"/>				
Sulphate attack	Y	Y N	Y N	Y N	Chimney-liner	Y N	Linear Metres: <input type="text"/> m				
					Other	Y N	Specify <input type="text"/>				
Unstable parapets	Y	Y N	Y N	Y N							
Wall bulging	Y	Y N	Y N	Y N	Tie rods	Y N	Number: <input type="text"/>				
					Strapping	Y N	Number: <input type="text"/>				
					Other	Y N	Specify <input type="text"/>				
Differential Movement	Y	Y N	Y N	Y N	Movement-joint	Y N	Linear Metres: <input type="text"/> m				
					Other	Y N	Specify <input type="text"/>				
Lintel failure	Y	Y N	Y N	Y N	Replace lintels	Y N	Number: <input type="text"/>				
Wall tie failure	Y	Y N	Y N	Y N	Insert wall ties	Y N	Wall area m ² <input type="text"/>				
Unstable floors, stairs or ceilings	Y	Y N	Y N	Y N							
Dry rot/wet rot	Y	Y N	Y N	Y N	Wall & timber treatment	Y N	Basement 1	One room 2	One floor 3	Loft 4	Most Building 5
Wood-borer infestation	Y	Y N	Y N	Y N	Timber treatment	Y N	Basement 1	One room 2	One floor 3	Loft 4	Most Building 5
Adequacy of balconies/projections	Y	Y N	Y N	Y N	Replace fixings	Y N	Total number: <input type="text"/>				
					Other	Y N	Specify <input type="text"/>				
Foundation settlement	Y	Y N	Y N	Y N	Underpin	Y N	Linear Metres: <input type="text"/> m				
					Other	Y N	Specify <input type="text"/>				
Integrity of structural frame	Y	Y N	Y N	Y N	Making-good	Y N	Wall area: <input type="text"/> m ²				
					Replace	Y N					
Integrity of wall panels	Y	Y N	Y N	Y N	Replace fixings	Y N	Total number: <input type="text"/>				
					Other	Y N	Specify <input type="text"/>				
Boundary wall - unsafe height	Y	Y N	Y N	Y N							
Boundary wall - out of plumb	Y	Y N	Y N	Y N							
Boundary wall - horizontal cracking	Y	Y N	Y N	Y N							
Unstable retaining wall	Y	Y N	Y N	Y N							
Any other problems	Y	Y N	Y N	Y N	Specify <input type="text"/>		Specify <input type="text"/>				

Refer back to page 3 (and page 21 if flat) for interim assessments

Final fitness assessment

	Unfit	Defective	Acceptable	Satisfactory
Structural stability	1	2	3	4
Clear cut?	Y	N		

22. Summary of fitness

Refer back to all final fitness assessments and confirm (pages 3, 4, 29, 30)

	Unfit	Defective	Acceptable	Satisfactory
Is the dwelling unfit?	1	2	3	4
Is this a clear cut decision?	Y	N		

If not clear cut, give reasons why:

If dwelling is unfit, what are the reasons?

Ring all grounds for unfitness and describe problems below in detail:

- | | |
|-------------------------|----------------------------|
| 1. Structural stability | <input type="checkbox"/> Y |
| 2. Disrepair | <input type="checkbox"/> Y |
| 3. Dampness | <input type="checkbox"/> Y |
| 4. Lighting | <input type="checkbox"/> Y |
| 5. Heating | <input type="checkbox"/> Y |
| 6. Ventilation | <input type="checkbox"/> Y |
| 7. Water supply | <input type="checkbox"/> Y |
| 8. Food preparation | <input type="checkbox"/> Y |
| 9. WC | <input type="checkbox"/> Y |
| 10. Bath/Shower/WHB | <input type="checkbox"/> Y |
| 11. Drainage | <input type="checkbox"/> Y |

If unfit:

Are there any mitigating circumstances for unfitness decision?

None	Short-term refurbishment	Being made fit
1	3	4

If unfit or fit:

What is the most appropriate course of action?

RETAIN			DO NOT RETAIN	
No action	Repair/improve single dwelling	Repair/improve block/group of dwellings	Demolish/replace individual dwelling	Demolish/replace block/group of dwellings
1	2	3	4	5

23. Health and safety rating

Are any of the following five safety hazards significantly worse than those found in average dwellings of their age and type?

Y N

Review the Health and Safety Flags for the Interior (page 3), Common Parts (page 21), Shared Facilities (page 23), and Plot of Survey Dwelling (page 28) to decide whether any of the five hazards are significantly worse than average. If none of the hazards are significantly worse than average, ring 'No' to this question and go to Local Area section. If any of the hazards are significantly worse than average, ring 'Yes', describe below and consider each hazard in turn.

Description of significant safety hazards

Falling on stairs

Worse than average

Y N

Likelihood of a person over 60 having a fall leading to harm

					Average	Average Pre 1919						
			1800	1000	560	320	180	100	56	32	18	<10

Likelihood outcome if person over 60 should fall

Class 1 Extreme %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
Class 2 Severe %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
Class 3 Serious %	0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100

must not add up to 100.2%

Look-up table

Likelihood Class 1 Outcome	1 in 1800	1 in 1000	1 in 560	1 IN 320	1 in 180	1 in 100	1 in 56	1 in 32	1 in 18	1 in 10 or less
0.1%						F	E	D	C	B
0.2%						E-	E	D	C	B
0.5%						E	E	D	C	B
1.0%						E	E+	D	C	A-
2.2%				F	E-	E	D	C	B	A
4.6%				E-	E	D	C	B-	B	A
10.0%			E-	E	D	C	B-	B	A	A
21.5%		E	E	D	C	B	B	A	A	A
31.6%		E	D	C	C	B	A	A	A	A
46.4%	E	E	D	C	B	B	A	A	A	A
100%	D	C-	C	B	A	A	A	A	A	A

Action required

Action required?	Action	Described elsewhere?	Quantity
Y	Install handrail	Y N	Metres:
Y	Install balustrade	Y N	Metres:
Y	Cover dangerous balustrade/guarding	Y N	Metres:
Y	Repair/replace internal staircase (S5)	Y	
Y	Redesign internal, common or external staircase (design, not condition)	N	Number:
Y	Repair/replace external/common staircase (S9)	Y	
Y	Repair/replace external steps (S11, S18)	Y N	Number:
Y	Cover slippery stairs	Y N	Flights:
Y	Repair/replace/provide additional lighting (S5, S9, S11)	Y N	Number:
Y	Remove obstacle	N	Number:

Falling on level surfaces etc.

Worse than average

Y N

Average
Average
Pre 1919

Likelihood of a person over 60
having a fall leading to harm

				1000	560	320	180	100	56	32	18	<10
--	--	--	--	------	-----	-----	-----	-----	----	----	----	-----

Likelihood outcome
if person over 60
should fall

Class 1 Extreme %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Class 2 Severe %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Class 3 Serious %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

must not
add up to
100.2%

Look-up table

Likelihood Class 1 Outcome	1 in 1000	1 in 560	1 IN 320	1 in 180	1 in 100	1 in 56	1 in 32	1 in 18	1 in 10 or less
0.1%						E	D	C	B+
0.2%				F	E-	E	D+	C	A-
0.5%				F	E	D	D	C	A
1.0%				E-	E	D	D	B	A
2.2%				E	D-	D	C	B	A
4.6%			E	E	D	C	B	B	A
10.0%		E	E	D	C	B	B	A	A
21.5%	E	E	D	C	B	B	A	A	A
31.6%	E	D	C	C+	B	A	A	A	A
46.4%	E+	D	C	B	B	A	A	A	A
100%	C-	C	D	B	A	A	A	A	A

Action required

Action required?	Action	Described elsewhere?	Quantity
Y	Repair floors (S5, S9)	Y	
Y	Repair paths/external surfaces (S11, S18)	Y	
Y	Remove trip steps (S5, S9)	Y N	Number:
Y	Redesign external pathways (S11,S18)	N	Metres:
Y	Cover slippery surfaces	Y N	Sq m:
Y	Repair/replace/provide additional lighting (S5, S9, S11)	Y N	Number:
Y	Remove obstacle	N	Number:

Falling between levels

Worse than average

Y N

Average

Likelihood of a child under 5
having a fall leading to harm

5600	3200	1800	1000	560	320	180	100	56	32	18	<10
------	------	------	------	-----	-----	-----	-----	----	----	----	-----

Class 1 Extreme %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Likelihood outcome
if a child under 5
should fall

Class 2 Severe %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Class 3 Serious %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

must not
add up to
100.2%

Look-up table

Likelihood Class 1 Outcome	1 in 5600	1 in 3200	1 in 1800	1 in 1000	1 in 560	1 IN 320	1 in 180	1 in 100	1 in 56	1 in 32	1 in 18	1 in 10 or less
0.1%				H	H	G	F	E-	E	E	E	B
0.2%			J	H	H	G	F	E	E	E	E	B
0.5%			I	H	H	G	F	E	E	D	D	B
1.0%			I	H	G	F	F	E	D-	D	D	A-
2.2%		I	H	H	G	F	E	E	D	D	B	A
4.6%	I	H	H	G	F	E	E	D	D	B-	B	A
10.0%	H	H	G	F	E	D	D	C	B	B	A	A
21.5%	H	G	F	E	D	D	C	B	B	A	A	A
31.6%	G	F	F	E	D	C-	C	B	A	A	A	A
46.4%	G	F	E	E	D	C	B	B	A	A	A	A
100%	F	E	D	C+	C	B	A	A	A	A	A	A

Action required

Action required?	Action	Described elsewhere?	Quantity
Y	Install window safety catches	Y N	Number:
Y	Repair/replace/provide additional lighting (S5, S9, S18)	Y N	
Y	Brick-up dangerous opening/raise cill height	N	Number:
Y	Repair/replace balconies (S9, S18)	Y	
Y	Repairs to plot (S11, S18)	Y	
Y	Repair/replace/cover existing guarding/balustrading (S5, S9, S11, S18)	Y	
Y	Install new guarding/balustrading	N	Metres:
Y	Remove obstacle	N	Number:

Fire

Worse than average

Y N

Average
Average
flat

Likelihood of a fire occurring leading to harm if occupied by a person over 60

5600	3200	1800	1000	560	320	180	100	56	32	18	<10
------	------	------	------	-----	-----	-----	-----	----	----	----	-----

Likelihood outcome if occupied by person over 60

Class 1 Extreme %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Class 2 Severe %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Class 3 Serious %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

must not add up to 100.2%

Look-up table

Likelihood Class 1 Outcome	1 in 5600	1 in 3200	1 in 1800	1 in 1000	1 in 560	1 in 320	1 in 180	1 in 100	1 in 56	1 in 32	1 in 18	1 in 10 or less
0.1%							G	F-	F	E	E	C
0.2%							G	F	E-	E	D	C
0.5%						H	G	F	E	E	D	B
1.0%						G	F-	F	E	D	C	B
2.2%					G	G	F	E	D	C	C	A-
4.6%	I	H	H	G	F-	F	E	D	C	C	B	A
10.0%	H	H	G	F-	F	E	D	C-	C	B	A	A
21.5%	H	G	F	E	E	D	C	B-	C	A	A	A
31.6%	G	F-	F	E	D	C-	C	B	B	A	A	A
46.4%	G	F	E	E	D	C	B	B	A	A	A	A
100%	F	E	D	C+	C	B	A	A	A	A	A	A

Action required

Action required?	Action	Described elsewhere?	Quantity
Y	Repair/replace electrical system (S5)	Y	
Y	Provide additional sockets	Y N	Number:
Y	Repair/replace space heaters (S5)	Y	
Y	Replace inadequate heating system	Y N	
Y	Relocate cooker	Y N	Number:
Y	Re-fit kitchen (S5)	Y N	Number:
Y	Extend kitchen and re-fit	Y N	Number:
Y	Resite kitchen and re-fit	Y N	Number:
Y	Reposition heater, heating or hot water pipes	Y N	Number:
Y	Repair/install precautions to common areas (S9)	Y N	Sq m:
Y	Replace non fire resistant/smoke permeable structure	Y N	Sq m:
Y	Upgrade stairway to protected route	Y N	Flights:
Y	Provide fire stops to service ducts	Y N	Number:
Y	Provide fire stop wall to loft space	Y N	Number:
Y	Provide self-closing doors	Y N	Number:
Y	Install smoke detectors	Y N	Number:
Y	Provide suitable openable windows/doors for MOE (S5,S9)	Y N	Number:
Y	Provide fire escape	Y N	Flights:
Y	Remove obstacle	N	Number:

Flames, hot surfaces

Worse than average

Y N

Average

Likelihood of a child under 5 being burnt/scalded

				1000	560	320	180	100	56	32	18	<10
--	--	--	--	------	-----	-----	-----	-----	----	----	----	-----

Likelihood outcome if a child under 5 is burnt/scalded

Class 1 Extreme %

<0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
------	-----	-----	---	-----	-----	----	------	------	------	-----

Class 2 Severe %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

Class 3 Serious %

0.1	0.2	0.5	1	2.2	4.6	10	21.5	31.6	46.4	100
-----	-----	-----	---	-----	-----	----	------	------	------	-----

must not add up to 100.2%

Look-up table

Likelihood Class 1 Outcome	1 in 1000	1 in 560	1 in 320	1 in 180	1 in 100	1 in 56	1 in 32	1 in 18	1 in 10 or less
0.1%				H	F	E-	E	D	C
0.2%				G	F	E	E	D	C
0.5%				G	F	E	D-	D	B
1.0%				F	E-	E	D	C	B
2.2%			F-	F	E	D	D+	C	A
4.6%		F-	F	E	D	D	C	B	A
10.0%	F-	F+	E	D	C	C+	B	A	A
21.5%	E-	E	D	C	B	B	A	A	A
31.6%	E	D	C-	C	B	A	A	A	A
46.4%	E+	D	C	B	B+	A	A	A	A
100%	C-	C	B	A	A	A	A	A	A

Action required

Action required?	Action	Described elsewhere?	Quantity
Y	Repair, replace or reposition heater, heating or hot water pipes (S5)	Y N	Number:
Y	Relocate cooker	Y N	Number:
Y	Re-fit kitchen (S5)	Y N	Number:
Y	Extend kitchen and re-fit	Y N	Number:
Y	Re-site kitchen and re-fit	Y N	Number:
Y	Remove obstacle	N	Number:

24. Local area

Eight Band Definition

Urban					Rural		
Band A	Band B	Band C	Band D	Band E	Band F	Band G	Band H
Belfast Metropolitan Urban Area (BMUA)	Derry Urban Area	Large Town	Medium Town	Small Town	Intermediate Settlement	Village	Small Village, Hamlet, Open Countryside
1	2	3	4	5	6	7	8

Settlement type

Urban		Rural	
BMA	District Town/ Other Town	Small rural settlement	Isolated Rural
1	2	3	4

Visual quality of local area

Best				Worst		
1	2	3	4	5	6	7

Problems in local area

	No problems			Major problems	
Litter/rubbish/dumping	1	2	3	4	5
Graffiti (non-sectarian)	1	2	3	4	5
Vandalism	1	2	3	4	5
Dog/other excrement	1	2	3	4	5
Condition of dwellings	1	2	3	4	5
Vacant sites	1	2	3	4	5
Intrusive industry	1	2	3	4	5
Non-conforming uses	1	2	3	4	5
Vacant/boarded up buildings	1	2	3	4	5
Ambient air quality	1	2	3	4	5
Heavy traffic	1	2	3	4	5
Intrusion from motorways/arterial roads	1	2	3	4	5
Railway/aircraft noise	1	2	3	4	5
Nuisance from street parking	1	2	3	4	5
Scruffy gardens/landscaping	1	2	3	4	5
Scruffy/neglected buildings	1	2	3	4	5
Condition of roads, pavements and street furniture	1	2	3	4	5
Painted kerbs	1	2	3	4	5
Graffiti (sectarian)	1	2	3	4	5

25. Survey Monitoring Information

Please attach copy of the address label for this dwelling

Surveyor Number

Number of Visits

Date of Last Visit

Office Use

Week No.

Summary of Survey Response

Full survey	No contact made	Access refused to surveyor	Access refused at NIHE	Address untraceable	Dwelling derelict	Dwelling demolished	No longer usable as a dwelling	Other
1	2	3	4	5	6	7	8	9

Individual Response Details (COMPLETE ALL 6 CATEGORIES)

	Full	Part	None		Yes	No
External Dwelling Inspection	1	2	3	Loft Inspection?	1	2
Internal Dwelling Inspection	1	2	3	Photographs Taken?	1	2
Household Interview Survey	1	2	3	HMO Form Completed?	1	2

Dwelling Characteristics (CIRCLE APPROPRIATE DESCRIPTIONS)

Dwelling Tenure	Owner Occupied 1		Private Rented 2	Housing Executive 3		Housing Assoc. 4		Settlement Type	Urban 1		Rural 2					
Occupancy	Occupied 1		Vacant 2													
Construction Date	Pre 1919 1		1919-44 2		1945-64 3		1965-74 4		1975-1980 5		1981-1990 6		1991-2000 7		2001-2006 8	
Type of Occupancy	Single Family Dwelling 1		Shared House 2		Household & Lodgers 3		Bedsits or Flatlets 4		PB & Shared Amenities 5		Hostel/ B & B 6		Converted Self Contained Flat 7			

Dwelling Condition (COMPLETE FIRST IMPRESSION, FITNESS DETAILS AND ACTION REQUIRED)

First Impression						
1	2	3	4	5	6	7

FITNESS

Fit	Unfit	Reason for Unfitness	Unfit	Reason for Unfitness	Unfit
Clear Cut Decision?		Structural Stability	Y N	Water Supply	Y N
Yes No		Disrepair	Y N	Food Preparation	Y N
		Dampness	Y N	WC	Y N
		Lighting	Y N	Bath/shower/WHB	Y N
		Heating	Y N	Drainage	Y N
		Ventilation	Y N	Any Mitigation?	Y N

ACTION

None	Repair/improve single dwelling	Repair/improve block/group dwellings	Demolish/replace individual dwelling	Demolish/replace block/group dwellings
1	2	3	4	5

OFFICE USE ONLY

Prawl Ref. No.	Grants Ref. No
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APPENDIX C

ESTIMATING REPAIR COSTS

Introduction

This appendix briefly outlines the methodology used to produce the repair costs quoted in the main report. It looks at how the primary data was collected by surveyors and its interpretation by the Building Research Establishment's repair cost model to produce the final estimates.

Primary Data

Four types of information were used to calculate base repair costs:

- The surveyor's assessments of the types of internal repair needed and their extent. Much of this information was collected on the basis of how many tenths of a specific element required repair or replacement.
- External elements and items were assessed on the basis of materials and forms. Appropriate treatments were recommended. In both cases the information was entered on to the survey form in tenths.
- Building dimensions and forms were measured and entered in the survey form in meters.
- Unit prices for different types of jobs were taken from the 2006 National Schedule of Rates with a cost factor of 0.75 for Northern Ireland.

Normally the interior was surveyed first, then the exterior.

- A number of rooms were selected to give a representative view of the dwelling as a whole: living room, kitchen, bedroom and bathroom.
- The total number of rooms present was noted and the overall estimates for the dwelling increased accordingly.
- All the internal facilities and services, bath, WC, wash hand basin, sink etc were surveyed individually.

For the common area of flats, only representative portions were surveyed and these were scaled up as appropriate.

Dwellings were assessed externally from two viewpoints, chosen so that, taken together, the whole of the exterior was seen.

Surveyors were instructed to make their assessments based on several assumptions:

- Dwellings were assumed to have an indefinite life span.
- Replacement or major work was to be delayed if reasonable repairs could be carried out in the interim.
- It was assumed that repairs rather than replacements would be carried out unless: (i) this was impossible or (ii) replacement would still be necessary within five years or (iii) the element would need replacement in any case e.g. because it was unsuitable for its intended purpose.
- Functionality was the criterion i.e. not modernisation, upgrading, fashion or cosmetic improvement.
- Economies of scale were not to be a criterion e.g. if total replacement would cost little more than, say, 80 per cent of replacement, cost was nevertheless based on partial replacement.

The assessment was based on:

- Proportional area where appropriate e.g. roofs, walls etc.
- Number of units e.g. doors, windows etc.
- Linear amount for those for which area was inappropriate e.g. gutters.

For linear elements the quantity was multiplied by unit cost e.g. for gutters per metre, for discrete elements e.g. doors by unit cost (£) and for area-based elements by cost per square metre.

- Replacement was on a like-for-like basis e.g. slate roof for slate roof, wooden window frame for wooden window frame where practical.

All the costs were calculated for individual dwellings

- For flats, the common areas and exterior costs were divided by the number of flats and added to the individual costs of the interiors.
- Where the surveyor recommended repairs which would have cost more than replacements the replacement cost was used.

Missing Data

Surveyors may have omitted some data or entered incorrect data.

Where appropriate, this was referred back to the surveyor, but otherwise imputation was applied on the following basis:

- (i) Dimensions, where implausible or missing, were corrected by reference to similar dwellings with the help of photographs, where available.
 - (ii) Where data on components were missing e.g. where a roof had a pitched and flat section, and only the pitched section had its repair needs recorded, the same proportion needing repair was entered for the flat section.
 - (iii) When an element, for which there was data on one view, was missing on the other view, it was assumed that both needed the same treatment.
 - (iv) If whole elements were missing, e.g. windows the average for dwellings of a similar age and type was used.
- Add-ons, up-lifts and preliminaries were used to modify base costs e.g. preliminary work before the specified work could begin, accessing equipment such as scaffolding and economies of scale. Economies of scale take account of the amount of work being done to one dwelling, say a call-out and whether more than one dwelling was likely to be included in one contract.

Repair Costs

The two main types of costs measures were:

- a. The extent of disrepair in terms of elements or unit costs.
 - b. Overall cost per dwelling so that aggregated costs could be assessed.
- Standardised (unit) costs were based on £ per square metre on the assumption that a contract contained five dwellings.
 - Required expenditure was total costs per dwelling based on single dwellings in the private sector. Unless a dwelling was specifically noted as a stand alone in the public sector the costs were based on a five dwelling contract. For flats the basis was always the complete block.
 - Comparisons of cost may only be valid as an indication of relative condition if care is taken to ensure that all other factors are equal e.g. size and form.

The BRE model processed this detailed information to provide repair costs for each dwelling as a whole and for each of its main elements. The results were then aggregated and are presented in tabular form in the Annex or in the text of the Main Report.

In statistical terms, the distribution of repair costs per dwelling was not normal:

- Most dwellings required relatively little or no expenditure, but a few required a great deal.
- Thus the mean level of expenditure gave a less accurate indication of the typical level of expenditure required than the median.
- The median cost could not be used for grossing up to total expenditure requirements - the mean was used for this purpose.

Repair Costs 2001 - 2006

The surveyors collecting the data were all briefed in the same manner in 2001 and 2006. However, surveyors' opinions can vary over time and consequently any comparisons made between the two surveys will include some unquantifiable error due to surveyor judgement shift.

Only one change has been made to the cost model between 2001 and 2006. This was an alteration to the way plot levels were costed and was designed to avoid under costing where improperly formatted data has been used. As a result of this, the real costs for 2001 were higher than reported. The original version of the NIHCS 2001 costs puts the mean cost for works to the plot at £6.83. A revised version of those same costs, but with the error corrected, puts the cost of work to the plot at £75.20. This may seem like a large increase, and for the element in question, it is, but when comparing this figure against the total required expenditure for the basic repair (£1555 for the revised figure) it becomes more reasonable.

Nonetheless, when interpreting the figures given in the report, it is important to remember that the real required expenditure for the 2001 HCS is actually around £75 higher than the listed. This applies to the plot levels, and those variables derived from the plot levels (total external works, and total required expenditure).

APPENDIX D TECHNICAL ISSUES

SAMPLE DESIGN

1. The 2006 Northern Ireland House Condition Survey was based on a stratified random disproportionate sample of 7,250 dwellings comprising two main elements:
 - A fresh sample of 4,000 properties.
 - A resample of 3,250. This resample is a vital element which enables the measurement of change over time.
2. The sample was stratified by area and a total of 250 properties were selected in each of Northern Ireland's 25 district council areas, with 1,000 selected for the Belfast District Council Area (250 in North, East, South and West Belfast).
3. The sample frame for the fresh sample, in 2006, was the survey sampling database held at the Northern Ireland Statistics and Research Agency (NISRA). This database contained a subset of the computerised records for domestic residential property maintained by the Valuation and Lands Agency. Within each area the sample was stratified on the basis of NAV. Properties with an NAV of less than £19 were excluded on the basis that they were normally in ruins or detached garages.
4. The sample frame was split into properties with a NAV of more than £150 and those with a NAV of £19-£150. Two-thirds of the properties were drawn from the £19-£150 band and the remaining one-third from the above £150 band. This was to allow attention to be directed to properties in poorer condition given the traditional association between NAV and condition. A total of 138 properties were selected from each District Council Area.
5. The sample frame for the resample was the database containing the 2001 Survey records. In each district all unfit and defective properties were selected for resurvey. The numbers were made up to 112 in each district by a random sample of properties, divided on the basis of

those which had been acceptable and those which had been satisfactory. If the number of dwellings categorised as acceptable was low then all were included. This sample was extracted by the Housing Executive's Research Unit.

6. The Survey used a Stratified Random Disproportionate sample design.
 - (i) It was stratified in that the sample was chosen to have approximately even numbers in each District Council Area or area of Belfast. Each of these areas constituted a stratum. This had the benefit that sample errors were similar in each District Council Area and area of Belfast, which facilitated comparisons during analyses.
 - (ii) Within each of these areas addresses were chosen at random, but in the case of the fresh sample, the sample frame was first split into properties with NAV above and below £150.
 - (iii) A higher proportion of those in the lower band was chosen at random than would have occurred had the random selection extended across the whole address listing taken as one unit. This, along with the use of the sample size for areas with widely differing numbers of dwellings, made the sample disproportionate.

Weighting and Grossing

- 1 Weighting and grossing is the process whereby the information gathered by means of a sample survey is translated into figures that reflect the real world. The process has a number of stages reflecting the separate stages of the sampling process and the survey process itself. In the case of the 2006 HCS it also has to take account of the need to allow for new build and demolitions and to control the survey-based statistics to external totals (District Council by tenure).
- 2 The two strands of this process (weighting and grossing) were merged into a single 'weight' and applied to each sampled dwelling and the data held for it.
- 3 Non response is a potential source of error that can be difficult to correct. However, an initial adjustment was made for non response on

the basis of tenure. Non response was higher in private sector dwellings than in the social sector. An adjustment was made to correct this imbalance.

4 An analysis of the VLA-based sample frame showed the proportion of dwellings in Northern Ireland with NAVs between £19 and £150 and greater than £150. The sample was drawn on the basis that two-thirds of the sample had NAV's of £19-£150 and one-third had NAVs of £150. The sample was then corrected by multiplying the results by the disproportion factors.

5 The disproportionate nature of the re-sample was also rectified by applying appropriate factors. Primarily in order to facilitate the longitudinal study of unfit and disrepair all 2001 unfit and defective dwellings were included. Proportions were corrected appropriately with allowances made for new build and demolitions.

Sample Error

1 It has become normal practice to estimate the sample errors at the 95% confidence level i.e. the results would be replicated nineteen times out of twenty if the survey were repeated.

The formula for sample error is:

$$\pm 1.96 \sqrt{\frac{P(100-P)}{N-1}}$$

where P is the percentage in question and N is the sample size in question. Where N is large, for convenience this 1 is ignored. The result of application of this formula is that the percentage error increases as the sample size is reduced and the relative error increases when the percentage is very low or very high eg. less than 10% or higher than 90%.

2 Taking an example of a sample size of 100 and where the percentage in question is 10

5 sample error =

$$\pm 1.96 \sqrt{\frac{10 \times 90}{99}}$$

$$= \pm 5.91\%$$

Thus the percentage (10%) should be read as 10% \pm 5.91% i.e. one can only be sure that the percentage is between 4.09% and 15.91%. For 50% and a sample size of 100 the sample error would be \pm 9.85% i.e. the range would be from 41.15% to 59.85%.

3 The table of sample errors below has been calculated for an approximate achieved sample, after allowance for non response, for a council area outside Belfast (200).

%	5 or 95	10 or 90	15 or 85	20 or 80	25 or 75	30 or 70	35 or 65	40 or 60	45 or 55	50 50
Sample Size:										
100	4.25	5.91	7.03	7.88	8.53	9.03	9.40	9.65	9.80	9.85
200 (District/ Housing Assoc.)	3.00	4.17	4.96	5.56	6.02	6.37	6.63	6.81	6.91	6.95
500 (Vacant)	1.89	2.63	3.13	3.51	3.80	4.02	4.19	4.30	4.37	4.39
600 (Private Rented & Others)	1.73	2.40	2.86	3.20	3.47	3.67	3.82	3.92	3.98	4.00
900 (Housing Executive)	1.41	1.96	2.33	2.61	2.83	3.00	3.12	3.20	3.25	3.27
1000	1.34	1.86	2.21	2.48	2.69	2.84	2.96	3.04	3.09	3.10
2000	0.95	1.32	1.57	1.75	1.90	2.01	2.09	2.15	2.18	2.19
2500 (Resample)	0.85	1.18	1.40	1.57	1.70	1.80	1.87	1.92	1.95	1.96
3000 (Fresh sample)	0.77	1.07	1.28	1.43	1.55	1.64	1.71	1.75	1.78	1.79
3200 (Owner Occupied)	0.75	1.04	1.24	1.39	1.50	1.59	1.65	1.70	1.72	1.73
4000	0.67	0.93	1.11	1.24	1.34	1.42	1.48	1.52	1.54	1.55
5000	0.60	0.83	0.99	1.11	1.20	1.27	1.32	1.36	1.38	1.39
5400 (Northern Ireland)	0.58	0.80	0.95	1.07	1.16	1.22	1.27	1.31	1.33	1.33

4 It is most important, when comparisons are being made between Districts or between Northern Ireland and other parts of the UK, or between results of this Survey and previous Surveys, that potential sample error is calculated, even approximately, to determine whether there are real differences.

5 The sample issued consisted of the following components.

Total Fresh Sample 4002
Total Resample 3248
Total Sample 7250

Response Rate

1 The following table summarises the Survey outcome.

Survey Outcome	Number	%
Full Survey	5400	74
No contact made	771	11
Access refused to Surveyor	652	9
Access refused at NIHE	235	3
Address untraceable	8	<1
Dwelling derelict	41	<1
Dwelling demolished	58	<1
No longer usable as a dwelling	20	<1
Other	65	<1
Total	7250	100

-
- 2 Of the 7,250 addresses issued to surveyors, full surveys were completed for 5,400 properties giving a gross response rate of 74%. However, the potential response was 7,143 (excluding not traced, derelict and demolished), giving a response rate for the physical survey of 76% (5,400 out of 7,143).
 - 3 The response rate for the household survey was higher. Overall, 4,900 inspected dwellings were occupied and of these 4,845 household interviews were achieved, a response rate of 99%.
 - 4 The number of vacant dwellings visited during the Survey was 500. Therefore the total number of dwellings in which a household interview would have been possible was $7,143 - 500 = 6,643$. This gives a social survey response rate of 73% (4,845 interviews out of 6,643).

The following table summarises the response rates:

Full surveys as a % of sample	74%
Full physical surveys as a % of existing dwellings	76%
Full social surveys as a % of inspected occupied dwellings	99%
Full social surveys as a % of existing dwellings	73%

Rounding

- 1 Annex table numbers are rounded to nearest 10 and percentages to the nearest 0.1.
- 2 However, in the main text percentages are rounded in an attempt to prevent readers gaining an impression of spurious accuracy. Percentages were rounded up if the percentage was .5 or more (e.g. 10.5% was rounded up to 11%). There might be more than one instance of rounding up or down. Therefore, the total column may add to more or less than 100%. However, the total column in the table will still be shown as 100%.

APPENDIX E

GLOSSARY

Basic Amenities:

There are five basic amenities:

- kitchen sink
- bath or shower in a bathroom
- a wash hand basin
- hot and cold water to the above
- inside WC

Bedroom Standard

The bedroom standard is calculated as follows:

- A separate bedroom is allocated to each co-habiting couple, any other person aged 21 or over, each pair of young persons aged 10-20 of the same sex and each pair of children under 10 (regardless of sex).
- Unpaired young persons aged 10-20 are paired with a child under 10 of the same sex or, if possible, allocated a separate bedroom.
- Any remaining unpaired children under 10 are also allocated a separate bedroom.
- The calculated standard for the household is then compared with the actual number of bedrooms available for its sole use to indicate deficiencies or excesses.
- Bedrooms include bed-sits, box rooms and bedrooms that are identified as such by interviewees even though they may not be in use as such.

Central Heating System

Central heating was defined as a heating system with a distribution system sufficient to provide heat in at least two rooms. One of these may be to the room or space containing the boiler. For the purpose of this report, the definition also includes electric storage heaters that run on off-peak electricity.

Dwelling Age

The age of the dwelling refers to the date of construction of the oldest part of the building.

Double Glazing

Factory made sealed window units. This does not include windows with secondary glazing or external doors with double or secondary glazing (other than double glazed patio doors which count as 2 windows).

Dwelling Location

See Settlement Type (below)

Dwelling

A dwelling is a self contained unit of accommodation where all rooms and facilities available for the use of the occupants are behind a front door. For the most part a dwelling will contain one household, but may contain none (vacant dwelling), or may contain more than one household in which case it is a House in Multiple Occupation (HMO).

Floorspace

The usable internal floor area of the dwelling as measured by the surveyor, rounded to the nearest square metre. The area under partition walls has been excluded, as has that for integral garages and stores accessed from the outside only.

Household Reference Person

The household reference person is the member of the household who owns or pays the rent or mortgage on the property. Where two people have equal claim (e.g. husband and wife jointly owns the property) the household reference person is the person with the highest annual income. This definition is for analysis purposes and does not imply any authoritative relationship within the households.

Household

A single person living alone or a group of people living at the same address as their only or main residence either sharing a living room or sharing at least one meal a day or sharing a substantial proportion of domestic shopping arrangements (e.g. food shopping). There should therefore be a degree of interaction between household members.

Household Types

Lone Adult

One adult below pensionable age (65 for men, 60 for women).

Two Adults

Two people, related or unrelated, below pensionable age (65 for men, 60 for women).

Lone Parent

One adult living with one or more dependent children aged under 16.

Small Family

Two adults, related or unrelated, living with one or two dependent children aged under 16.

Large Family

Two adults, related or unrelated, living with three or more dependent children aged under 16; **OR** three or more adults living with one or more dependent children aged under 16.

Large Adult

Three or more adults, related or unrelated, and no dependent children aged under 16.

Two Person Older

Two people, related or unrelated, at least one of whom is of pensionable age (65 plus for men and 60 plus for women).

Lone Older

One person of pensionable age or older (65 plus for men, 60 plus for women).

Repair Costs

Faults

A fault is any problem which is not of a purely cosmetic nature and which either represents a health or safety hazard, or threatens further deterioration to the specific element or any other part of the building.

Faults requiring urgent treatment

Where surveyors recorded work to be carried out to an exterior building element, they indicated whether the work specified was urgent; defined as that needed to be undertaken immediately to

remove threats to the health, safety, security and comfort of the occupants and to forestall further rapid deterioration of the building.

Urgent Repair Costs

These are any works specified to deal with an external fault where its treatment was specified as urgent (see above), plus all recorded work to internal elements.

Basic Repair Costs

These are all urgent repairs plus all other repairs/replacements to external elements where the surveyor indicated a fault, but where the work was not specified as urgent.

Comprehensive Repair Costs

This includes all basic repairs together with any replacements the surveyor assessed as falling due over the next 10 years. For all exterior elements, whether work was specified or not, the replacement period of that element was recorded i.e. the number of years before it would need replacing.

Standardised Costs

These are costs in £ per square metre (£/sqm²) based on prices for Northern Ireland. It is assumed that all work is undertaken by contractors on a block contract basis. For flats, the size of the contract is assumed to be the whole block and for houses it is taken as a group of 5 dwellings. As such, the costs are more closely associated with those that may be incurred by a landlord organising the work on a planned programme basis. By reducing costs to a £sq/m² basis the effect of the size of buildings on the amount of disrepair recorded is negated, otherwise the extent of the disrepair measured is substantially driven by the size of the building.

Second Home

A second home is a dwelling that is occupied by a household, but not as their primary residence. In Northern Ireland these are largely holiday homes, used solely for holidays or weekends, both for family use or as a commercial holiday let.

The House Condition Survey came across very few second homes for business purposes.

The survey also recorded a third category: abandoned usually rural dwellings that belonged to a parent, grandparent or other relation and have now passed to a younger family member who lives elsewhere.

Tenure

The following categories are used for most reporting purposes:

Owner occupied: dwellings occupied by households who own their own homes outright or are buying them with a mortgage/loan. It includes houses part owned by Northern Ireland Co-ownership Housing Association.

Private rented (and others): occupied dwellings rented from private landlords. Includes households living rent free, or in tied homes or as wardens of, for example, housing association dwellings.

Housing Executive: all occupied dwellings owned and managed by the Northern Ireland Housing Executive.

Housing Association: all occupied dwellings owned and managed by housing associations (registered and unregistered) with the exception of NI Co-ownership Housing Association.

Vacant Dwellings: are classified as a separate “tenure” (see below). They were vacant on the day the surveyor carried out the survey.

Settlement Types

The settlement types used for the 2001 House Condition Survey were used again in 2004 and 2006. However, in 2004 and 2006 surveyors gathered the information themselves using a guidance booklet which categorised each address into one of the settlement groupings. In 2001 the settlement type information was added to the database afterwards using Geographical Information Systems (GIS).

In 2006, the categorization of the Belfast Area and District/Other Towns changed and the categories were reduced to four settlement groups. Therefore direct comparisons with 2001 and 2004 are no longer possible.

The hierarchy of 2006 settlement groups is as follows:

Belfast Metropolitan Area (BMA)

The concept of the old Belfast Urban Area has now been superseded by a more easily defined Belfast Metropolitan Area which includes the following six councils:

- Belfast
- Carrickfergus
- Newtownabbey
- Lisburn
- Castlereagh
- North Down

All dwellings in these six District Councils were classified as BMA.

District and Other towns

The historic distinction by Planning Service between District and “Other” towns is no longer meaningful. The following towns are classified under this heading:

- Antrim
- Derry/Londonderry
- Omagh
- Portrush
- Armagh
- Downpatrick
- Strabane
- Portstewart
- Ballycastle
- Dungannon
- Randalstown
- Newcastle
- Ballymena
- Enniskillen
- Comber

- Ballynahinch
- Ballymoney
- Larne
- Donaghadee
- Coalisland
- Banbridge
- Limavady
- Tandragee
- Dungiven
- Coleraine
- Magherafelt
- Dromore
- Kilkeel
- Cookstown
- Newtownards
- Rathfriland
- Warrenpoint
- Craigavon (including Lurgan and Portadown)
- Newry
- Carryduff

Small Rural Settlements

These are defined as those dwellings served by street lights which are distinct from and usually separated by open land from District towns/Other towns and outside BMA.

This classification demands some judgement;

- a) A few street lights on a busy main road do not necessarily make a few scattered houses a settlement.
- b) The Housing Executive has some small estates in rural areas with street lights but no posted settlement name. These should be counted as smaller settlements.
- c) Where some smaller settlements are being swallowed up by District Towns they should be counted within the District Town.

The use of the street light definition rather than villages and hamlets is because the latter are based on the presence of such amenities as churches and pubs. This definition works in England where it originated but not in Northern Ireland. Likewise numbers of dwellings in the area are difficult to assess in the scattered settlement types in Northern Ireland.

Isolated Rural

Not served by street lights. Again judgement is needed on the edges of settlements. Any dwellings within BMA settlement area was defined as BMA even if not served by street lights.

Type of Dwelling

Dwellings are classified by surveyors as follows:

Terraced house - a house forming part of a block where at least one house is attached to two or more other houses.

Semi-detached house - a house that is attached to one other house.

Detached house - a house where none of the habitable structure is joined to another building (other than garages, outhouses etc).

Purpose built flat - a flat in a purpose built block. Includes cases where there is only one flat with independent access in a building which is also used for non-domestic purposes.

Converted flat - a flat resulting from the conversion of a house or former non-residential building. Includes buildings converted into a flat plus commercial premises (typically corner shops).

Bungalow was defined as a house with all of the habitable accommodation on one floor. It excluded chalet bungalows and bungalows with habitable loft conversions, which are treated as houses. In the interests of clarity these are usually referred to as single storey houses in the text of the main report.

Vacant Dwellings

The assessment of whether or not a dwelling was vacant was made at the time of the survey.

Clarification of vacancy was sought from neighbours. Surveyors were required to gain access to vacant dwellings and undertake full inspections. The tenure when last occupied was noted for analysis purposes. However, in the private sector in particular, this does not mean it will be in this tenure when next occupied. Vacant dwellings are therefore normally analysed as a separate “tenure”.

Cavity Wall Insulation

For the purposes of this analysis the following classification has been adopted:

Full Cavity Wall Insulation - dwellings constructed with cavity walls where all walls contain cavity wall insulation.

Partial Cavity Wall Insulation - dwellings of cavity wall construction or partly of solid wall and partly of cavity wall construction, where at least one cavity wall contains insulation. A small number of dwellings were recorded as having no cavity walls but have cavity wall insulation. These dwellings have insulated concrete or timber panels and are classified as partial cavity wall insulation.

Dry Lining/External Insulation - dwellings originally built with solid wall construction, not included in the above category, but which have at least one wall with external insulation or dry lining.

No Wall Insulation - the remaining dwellings (of cavity wall or solid construction or both) where there is no evidence of insulation.

Fitness Decisions

The terms Satisfactory, Acceptable, Defective and Unfit are somewhat artificial concepts used in House Condition Surveys to indicate the condition of a property on a ‘sliding scale.’

The only true legal decision that the surveyors must make is whether the property is:

“so far defective in one or more of the 9 points [or headings or criterion] contained in the fitness standard as to be unreasonable for occupation in that condition”.

This definition must guide the surveyor’s decision in deciding if the property is legally Fit or Unfit. The three terms Satisfactory, Acceptable and Defective are degrees of fitness.

Surveyors are given the following guidance in assessing fitness in the NIHCS:

Satisfactory means that there are NO or very, very insignificant faults in relation to each heading.

Acceptable means that there are some faults of a minor nature that do not significantly impact on the overall condition or fitness judgements.

Defective indicates quite serious faults that are bringing the property close to a judgement of unfitness but not quite enough to make that final jump to a decision that the property fails the standard.

Unfit means the property fails the fitness standard, is unsuitable for occupation in that condition, and that statutory action by the Housing Executive is required.

Note:

Surveyors are told that if the condition of the property makes them start thinking that it could be unfit under any of the headings, then it can not be any better than defective under that heading.

The Decent Homes Standard (Northern Ireland) - A Summary

A decent home is one that is wind and weather tight, warm and has modern facilities. A decent home meets the following four criteria:

Criterion a: It meets the current statutory minimum standard for housing.

This current minimum standard for Northern Ireland is set out in schedule 5 of the Housing (Northern Ireland) Order 1992 (see Chapter 5). In England, the Unfitness Standard has been replaced by the Housing Health and Safety Rating as the first criterion in the Decent Homes Standard. In Northern Ireland the Department for Social Development is currently considering whether this should happen in Northern Ireland as well.

Criterion b: It is in a reasonable state of repair.

A dwelling satisfies this criterion unless:

one or more key building components are old and, because of their condition need replacing or major repair; or

two or more of the other building components are old and, because of their condition, need replacing or major repair.

Criterion c: It has reasonably modern facilities and services.

Dwellings that fail to meet this criterion are those that lack three or more of the following:

A reasonably modern kitchen (20 years old or less);

A kitchen with adequate space and layout;

A reasonably modern bathroom (30 years old or less);

An appropriately located bathroom and WC;

Adequate insulation against external noise (where external noise is a problem);

Adequate size and layout of common areas for blocks of flats.

Criterion d: It provides a reasonable degree of thermal comfort.

This criterion requires dwellings to have both effective insulation and efficient heating.

Efficient heating is defined as any gas or oil programmable central heating or electric storage heaters or programmable LPG/solid fuel central heating or similarly efficient heating systems that are developed in the future. Heating sources that provide less energy efficient options fail the decent home standard.

Because of the differences in efficiency between gas/oil heating systems and the other heating systems listed, the level of insulation that is appropriate also differs:

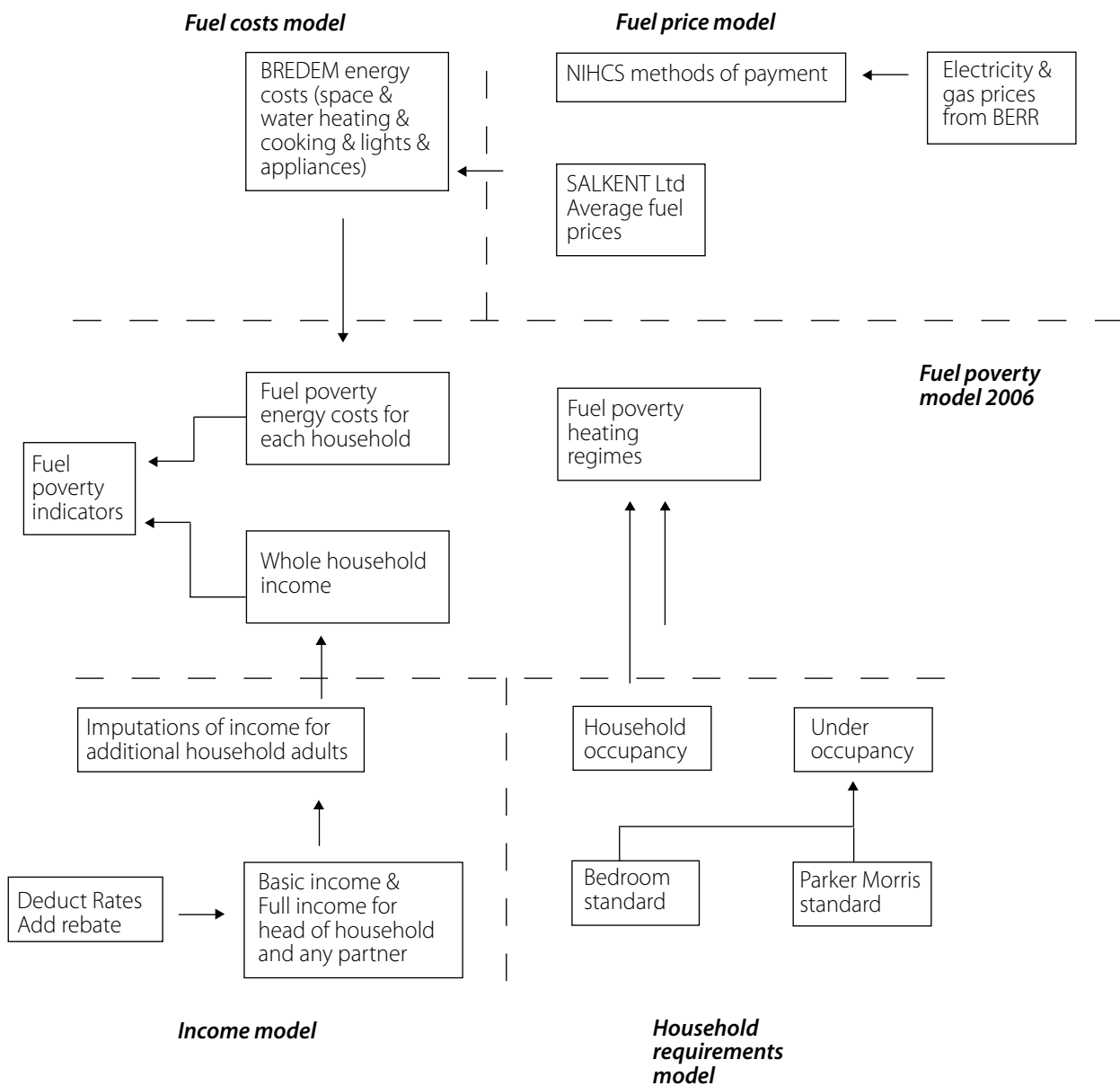
For dwellings with gas/oil programmable heating, cavity wall insulation (if there are cavity walls that can be insulated effectively) or at least 50mm loft insulation (if there is loft space) is an effective package of insulation.

For dwellings heated by electric storage heaters/ LPG/programmable solid fuel central heating a higher specification of insulation is required: at least 200mm of loft insulation (if there is a loft) and cavity wall insulation (if there are cavity walls that can be insulated effectively).

For the purposes of analysis all dwellings built since 1990 are assumed to meet the thermal comfort criterion.

APPENDIX F

SCHEMATIC DIAGRAM OF THE 2006 NORTHERN IRELAND FUEL POVERTY MODEL



Northern Ireland Income Calculation summary

Gross annual income is collected for the HRP and Partner (where present) in each household. Income Tax and National Insurance are deducted where applicable. Where a household on certain benefits has an income below what they should be entitled to under income support their income is raised to that level. The income of additional adults is not collected and so is modelled based on the characteristics of these adults using either earnings statistics or benefit information depending on their working status. This income is added to the net income of the Primary Benefit Unit (HRP and Partner) to create a 'basic' income variable. Housing benefit is added to this variable and finally net rates payable are deducted to create a 'full' income variable.

Calculation of fuel prices

The fuel price element of the fuel poverty model generates a case by case output to be fed into the energy consumption model.

The price each household pays for its fuel depends on four main factors:

- i) The household's location within the country (fuel prices vary regionally - however, only one region is considered for Northern Ireland).
- ii) The choice of supplier
- iii) The choice of tariff
- iv) The method of payment where relevant (i.e. payment by direct debit, credit etc).

Information on the exact tariff, or the supplier, is not collected in the NIHCS. The survey does however collect information on the geographical location of each case and on the method of payment (for metered fuels). This allows the application of an average fuel price for each region and method of payment. Fuel prices specific to each household are calculated for each case.

Household Requirements Model - Extent of Heating, under occupancy, Bedroom standard & Parker Morris Standard

Some dwellings are considered excessive in size for the number of occupants that live there. In this case the house is assumed to be "under-occupied" that is, only a proportion of the dwelling will need heating. In order for a dwelling to be considered under-occupied it must fulfil the following criteria that depend on both the number of bedrooms in a dwelling and the total floor area of the dwelling:

Bedroom standard

A dwelling is considered to have surplus bedrooms if:

- a) there are one or more extra bedrooms than required for homes without dependent children (children under 18 years)
- or
- b) there are two or more extra bedrooms than required for homes with dependent children.

The number of bedrooms required depends on the household constitution. The standard states that:

- A bedroom is required for each couple.
- Children of different sexes below the age of 11 years can share a room.
- Children/adolescents below the age of 21 years of the same sex can share a room.

Floor Area

There is surplus floor area in a property if the floor area of the property is over 200% of that considered to be the "standard" living area required for the number of occupants, as defined by the Parker-Morris Standard [4]. Table 3 defines this standard.

Occupants	Standard living area required (m ²)
1	33
2	48.5
3	61
4	79
5	89.5
6	97
7	114.5
8	128
9	140

Table 3: Parker Morris Standard

For the purposes of fuel poverty, a dwelling is considered to be under-occupied if there are both surplus bedrooms and surplus floor area.

If a dwelling is under-occupied then it is assumed that approximately half of the dwelling (based on the total floor-area of the dwelling and the layout of the floors) is heated, that is:

$$A_{\text{heated}} \approx 0.5A$$

where A is the total floor area of the dwelling.

Heating Regime

The following heating regimes are defined and used to calculate the energy consumption of a household:

Details of STANDARD heating regime

Heating Pattern Weekday 9 hours of heating

Weekend 16 hours of heating

Heating Extent Whole house

Demand Temperature Primary living zone 21C

Secondary living zone 18C

Details of FULL heating regime

Heating Pattern Weekday 16 hours of heating

Weekend 16 hours of heating

Heating Extent Whole house

Demand Temperature Primary living zone 21C

Secondary living zone 18C

Details of PARTIAL heating regime

Heating Pattern Weekday 16 hours of heating

Weekend 16 hours of heating

Heating Extent Half house

Demand Temperature Primary living zone 21C

Secondary living zone 18C

Having defined the heating regime used by each household, the energy use for space heating can

be approximated using the BREDEM model which calculates the energy required to bring each dwelling to the designated temperatures and for a set period of time each day and across the year. This calculation needs to take on board details about the heating systems, applied insulation and dwelling construction and materials.

Energy Consumption/ Fuel Costs

The amount of fuel consumed to provide the energy needs of each household is required as one of the components of the fuel poverty ratio, to assess whether a household is fuel poor. Under the fuel poverty definition, the energy required to heat and power a home includes energy for:

- i) Space heating - ES (GJ).
- ii) Water heating - EW (GJ).
- iii) Lights and appliances - EL&A (GJ).
- iv) Cooking - EC (GJ).

The BREDEM model [2] is used to predict the energy use of a household where:

$$\text{Total household fuel consumption} = \text{ES} + \text{EW} + \text{EL\&A} + \text{EC}.$$

Total household energy-use includes space and water heating (to meet defined standards) and energy for lights, appliances and cooking. The amount of energy required to heat a dwelling will depend on the building specification such as insulation levels, heating systems and the geographical location of the dwelling. A household's demand for energy will depend on the number of people within the household and the habits of these individuals. Information from the NIHCS is used to provide details about both dwellings and households. The calculation method for each component of energy consumption is consistent with standard energy models such as the Standard Assessment Procedure (SAP) for calculating energy use in dwellings and the more general model from which SAP is derived (BREDEM).

Finally, fuel prices from the fuel price model are combined with the fuel consumption model to provide modelled fuel costs for each household.

Calculating the Fuel Poverty Ratio for each household.

The final task in the estimation of fuel poverty is to combine the fuel costs with the incomes to calculate the Fuel Poverty Ratio (FPR)

For each case on the NIHCS, a 'fuel poverty ratio' is calculated. This calculation has three components - energy prices (unit and standing charges), fuel consumption and income.

$$\text{FPR} = (\text{Fuel Price} * \text{Fuel Consumption}) / \text{Income}$$

For each household

If the fuel poverty ratio is greater than 0.1 (i.e. a household spends more than 10% of their income on fuel) then the household is considered to be fuel poor.

APPENDIX G MODELLING HHSRS CATEGORY 1 HAZARDS

This section presents an overview of the Housing Health and Safety Rating System (HHSRS) and how the various hazards are measured and modelled using data from the Northern Ireland House Condition Survey (NIHCS). It is divided into 3 sections:

- What is the HHSRS?
- How does NIHCS measure and model Category 1 hazards?
- Data quality and reliability

1.1 What is the HHSRS?

The HHSRS is a means of identifying defects in dwellings and of evaluating the potential effect of any defects on the health and safety of occupants, visitors, neighbours and passers-by. The System provides a means of rating the seriousness of any hazard, so that it is possible to differentiate between minor hazards and those where there is an imminent threat of major harm or even death. The emphasis is placed on the potential effect of any defects on the health and safety of occupants and visitors; particularly vulnerable people. Altogether 29 hazards are included (Table 1).

The HHSRS scoring procedure uses a formula to generate a numerical Hazard Score for each of the hazards identified at the property - the higher the score, the greater the severity of that hazard. Potential hazards are assessed in relation to the most vulnerable class of person who might typically occupy or visit the dwelling. For example, for falls on stairs the vulnerable groups are children and the elderly (65+ years), for falls on the level it is the elderly, and for falls between levels it is children under 4 years old.

The hazard score formula requires the surveyor to make two judgements.

- The likelihood of the occurrence which could result in harm to a vulnerable person over the following twelve months. The likelihood is to be given as a ratio - eg, 1 in 100, 1 in 500, etc.

- The likely health outcomes or harms which would result from the occurrence. From any occurrence there may be a most likely outcome, and other possible ones which may be more or less severe. For example, a fall from a second floor window could result in a 60% chance of a severe concussion, but there may also be a 30% chance of a more serious injury and a 10% chance of something less serious. The 4 classes of harms and associated weightings are listed in Table 2.

Table 1: The 29 hazards covered by HHSRS

Physiological Requirements	Protection Against Infection
Damp and mould growth etc	Domestic hygiene, pests and refuse
Excessive cold	Food safety
Excessive heat	Personal hygiene, sanitation and drainage
Asbestos etc	Water supply
Biocides	
CO and fuel combustion productions	Protection Against Accidents
Lead	Falls associated with baths etc
Radiation	Falling on level surfaces
Uncombusted fuel gas	Falling on stairs etc
Volatile organic compounds	Electrical hazards
	Fire
Psychological Requirements	Flames, hot surfaces etc
Crowding and Space	Collision and entrapment
Entry by intruders	Explosions
Lighting	Position and operability of amenities etc
Noise	Structural collapse and falling elements

Table 2: Classes of harms and weightings used in the HHSRS

Class	Examples	Weightings
Class I	Death, permanent paralysis below the neck, malignant lung tumour, regular severe pneumonia, permanent loss of consciousness, and 80% burn injuries.	10,000
Class II	Chronic confusion, mild strokes, regular severe fever, loss of a hand or foot, serious fractures, very serious burns and loss of consciousness for days.	1,000
Class III	Chronic severe stress, mild heart attack, regular and persistent dermatitis, malignant but treatable skin cancer, loss of a finger, fractured skull, severe concussion, serious puncture wounds to head or body, severe burns to hands, serious strain or sprain injuries and regular and severe migraine.	300
Class IV	Occasional severe discomfort, chronic or regular skin irritation, benign tumours, occasional mild pneumonia, a broken finger, sprained hip, slight concussion, moderate cuts to face or body, severe bruising to body, 10% burns and regular serious coughs or colds.	10

From the judgements made by the surveyor, a hazard score can be generated for each hazard as illustrated below:

Class of Harm Weighting		likelihood 1 in		Spread of Harm (%)		
I	10,000	÷	100	X	0	= 0
II	1,000	÷	100	X	10	= 100
III	300	÷	100	X	30	= 90
IV	10	÷	100	X	60	= 6
				Hazard Score		= 196

To provide a simple means for handling and comparing the potentially wide range of Scores and avoid placing too much emphasis on the exact numbers, a series of ten Hazard Score Bands have been devised as shown below:

Band	Equivalent Hazard Scores	Overall Severity
A	5,000 or more	Category 1
B	2,000 - 4,999	
C	1,000 - 1,999	
D	500 - 999	Category 2
E	200 - 499	
F	100 - 199	
G	50 - 99	
H	20 - 49	
I	10 - 19	
J	9 or less	

The reporting focuses on Category 1 hazards (those in Bands A, B or C). There are currently a large number of worked examples available for training and assessment purposes. CLG have also published a number of guidance documents detailing the matters to be taken into consideration in assessing each hazard and the average likelihoods and spread of outcomes for each hazard.

1.2 How does NIHCS measure and model Category 1 hazards?

The NIHCS does not attempt to directly measure all 29 hazards because this would be extremely time-consuming (around half a day per assessment), require more extensive training and also the use of a specially programmed hand-held palm computer. It was agreed that the NIHCS could not be expected to carry out this type of assessment but BRE have devised a 'cut-down' method that would assess the key hazards in a way that could be incorporated into the existing NIHCS paper survey form. This was tested with a group of surveyors during 2000 and piloted as part of the 2001 NIHCS.

In the 2006 survey, surveyors were asked to rate five hazards directly. These five were chosen because the HHSRS statistics indicated that these would be the most frequent causes of failures of the HHSRS where NIHCS did not already collect relevant or proxy data in the physical survey. These hazards were:

- Falls on stairs
- Falls on the level
- Falls between levels
- Fire
- Hot surfaces

All dwellings scoring over 1,000 (Band A, B or C) on these items were deemed to have category 1 hazards. Two days of the surveyor training sessions in 2006 were dedicated to explaining the principles, how the form should be completed as well as conducting practical and written test exercises with feedback sessions.

The HHSRS guidance specifies, for each hazard, the group of occupants who are most likely to be at risk from the particular hazard; to have an increased likelihood of an incident happening and/or suffer more serious harms as a result (Table 3).

NIHCS surveyors were clearly informed about the most vulnerable group for this hazard, they were instructed to assess the property ignoring the current occupancy and assume that the home was occupied by a member of that vulnerable group.

An additional 10 hazards were modelled using other data from the physical survey and, in some cases, the interview with occupants. The assumptions are the same as those used for modelling these hazards in the English House Condition Survey (EHCS). As with the measured hazards, current occupancy was ignored and the assumptions are summarised in Table 4.

Table 3: Specified vulnerable group for each hazard

Hazard	Most vulnerable group
Dampness and mould growth	Age under 14
Excess cold	Age 65 or over
Carbon monoxide	Age 65 or over
Lead	Age under 3
Radon	Age 60-64
Crowding and space	None
Noise	None
Domestic hygiene etc.	None
Personal hygiene etc.	Age under 5
Falls on the level	Age 60 or over
Falls - stairs or steps	Age 60 or over
Falls between levels	Age under 5
Electrical hazards	Age under 5
Fire	Age 60 or over
Hot surfaces and materials	Age under 5
Collision and entrapment	Age under 5

Table 4: Methods used to model HHSRS hazards using NIHCS data

Risk	Definition of category 1 hazard used
Excess Cold	SAP rating of less than 35. This threshold was based on modelling carried out by BRE
Dampness	Dwelling had been marked as unfit on damp AND 1. If photos of mould from interview were in worst category OR 2. If photos of damp from interview were in worst category OR 3. Property was vacant
Carbon Monoxide	Appliance ventilation in any room is inadequate AND general ventilation in same room is inadequate.
Electrical Safety	Electrical system needs replacing AND internal repair is seriously defective AND there is services disrepair in at least one room AND whole electrical system is classified as in disrepair.
Radon	Dwelling located in one of the 16 post code sectors critical based on radon exposure map AND was a house built before 1980.
Noise	Traffic, motorway /road and aircraft / railway noise were all coded as major problems
Lead	Dwelling located in one post code based on drinking water quality map AND built before 1945 AND with lead piping present either before or after the mains stop cock
Domestic hygiene and pests	Evidence of rats or mice in a kitchen or habitable room which included a kitchen facility
Personal hygiene	There was only 1 internal WC AND it was declared unfit AND the safety and hygiene of the WC space was declared seriously defective AND the layout was declared seriously defective AND it was marked as seriously defective on cleanability.
Overcrowding	The occupants per habitable room ratio was calculated. If this exceeded 2 the dwelling had a category 1 hazard regardless of size. If it was equal to 2 and the number of habitable rooms was 2 or more the dwelling also had category 1 hazard.
Collision and entrapment	The surveyor noted that there was low headroom in circulation space inside the dwelling.

Table 5: Summary of how NIHCS collects and models information about HHSRS hazards 2006

Hazard	2006
Dampness and mould growth	Modelled
Excess cold	Modelled
Excess heat	
Asbestos (and MMF)	
Biocides	
Carbon monoxide	Modelled
Lead	Modelled
Radon	Modelled
Uncombusted fuel gas	
Volatile organic compounds	
Crowding and space	Modelled
Entry by intruders	
Lighting	
Noise	Modelled
Domestic hygiene etc.	Modelled
Food safety	
Personal hygiene etc.	Modelled
Water supply	
Falls - baths	
Falls on the level	Fully measured
Falls - stairs or steps	Fully measured
Falls between levels	Fully measured
Electrical hazards	Modelled
Fire	Fully measured
Hot surfaces and materials	Fully measured
Collision and entrapment	
Explosions	
Ergonomics	
Structural collapse	

APPENDIX H

Standard Assessment Procedure (SAP05)

The Standard Assessment Procedure (SAP) is the Government's recommended system for home energy ratings. SAP ratings allow comparisons of energy efficiency to be made, and can show the likely improvements to a dwelling in terms of energy use. The Building Regulations require a SAP assessment to be carried out for all new dwellings and conversions. The current version is SAP 2005, effective from April 2006. This is the version used throughout this report.

The SAP ratings give a measure of the annual unit energy cost of space and water heating for the dwelling under a heating regime, assuming specific heating patterns and room temperatures. The fuel prices used are averaged over the previous three years across the regions in the UK. The SAP takes into account a range of factors that contribute to energy efficiency, which include:

- thermal insulation of the building fabric;
- the shape and exposed surfaces of the dwelling;
- materials used for construction of the dwelling;
- efficiency and control of the heating system;
- the fuel used for space and water heating, ventilation and lighting;
- ventilation and solar gain characteristics of the dwelling;
- renewable energy technologies.

SAP is not affected by the individual characteristics of the household occupying the dwelling or by the geographical location.

The SAP scale.

The SAP¹ rating is expressed on a logarithmic scale, which normally runs from 1 (very inefficient) to 100, where 100 represents zero energy cost. The rating can be above 100 for dwellings that are net exporters of energy, however this is currently an

unlikely scenario for NIHCS dwellings. In extremely inefficient cases the formula that defines the rating can result in negative values when applied to the NIHCS sample. In practice when issuing SAP ratings the negative values would be reset to 1 but, for the purpose of this report, the values produced by the SAP formula that fall outside the defined scale have been retained, so as not to distort the profiles of energy efficiency within the housing stock.

Calculation of SAP ratings from NIHCS data.

A computerised version of the SAP 2005 methodology is used to calculate the SAP rating for each dwelling included in the NIHCS physical survey. Most of the data required for the calculation of the SAP are available from the survey, either directly from the questions asked or as a result of further modelling. Those data items that are not collected have very little impact on the final calculated rating. Where data items are missing these are dealt with using default information based on information from dwellings of the same age, built form, tenure, number of floors and size.

The original SAP procedure was first specified in 1996. Since this time, the procedure has been modified and updated. This has included updating the prices of each of the fuels used in the calculation.

However, it is desirable to attempt to neutralise the effect of changing fuel prices over time. This allows each version of SAP to be comparable to all earlier versions, and enables SAP to be a measure of changing energy consumption over time. Therefore, each new version of the Standard Assessment Procedure (SAP) attempts to remove the effect of changing fuel prices by multiplying the total cost of energy by an energy-cost-deflator (Ecf).

To remove the effect of fuel price changes between a 1996 calculation of SAP and a 2005 calculation, it is necessary to ensure that:

$$E_{cf}(96) \times \text{Total Cost of energy for SAP 96 prices} = E_{cf}(05) \times \text{Total Cost of energy for SAP 05 prices}$$

¹ 2005 version

Where

Total Cost of energy for SAP 96 prices = $Q_p \text{ } \pounds_p(96) + Q_s \text{ } \pounds_s(96) + Q_w \text{ } \pounds_w(96) + Q_e \text{ } \pounds_e(96)$

Total Cost of energy for SAP 05 prices = $Q_p \text{ } \pounds_p(05) + Q_s \text{ } \pounds_s(05) + Q_w \text{ } \pounds_w(05) + Q_e \text{ } \pounds_e(05)$

and

Q_p, Q_s, Q_w, Q_e :

is the energy (kWh/yr) associated with primary heating, secondary heating, water heating and electrical energy required for pumps, fans and lighting.

$E_{cf}(96)$ *is the energy-cost-deflator for SAP1996;*

$E_{cf}(05)$ *is the energy-cost-deflator for SAP2005;*

$\pounds_p(96)$ *is the SAP price of the primary fuel in 1996 (p/kWh);*

$\pounds_p(05)$ *is the SAP price of the primary fuel in 2005 (p/kWh);*

$\pounds_s(96)$ *is the SAP price of the secondary fuel in 1996 (p/kWh);*

$\pounds_s(05)$ *is the SAP price of the secondary fuel in 2005 (p/kWh);*

$\pounds_w(96)$ *is the SAP price of the water-heating fuel in 1996 (p/kWh);*

$\pounds_w(05)$ *is the SAP price of the water-heating fuel in 2005 (p/kWh);*

$\pounds_e(96)$ *is the SAP price of the electricity in 1996 (p/kWh);*

$\pounds_e(05)$ *is the SAP price of the electricity in 2005 (p/kWh).*

That is, if we calculate a SAP for one set of data based on the SAP 1996 prices and then recalculate the SAP using the same set of data but this time using SAP 2005 prices, the SAP ratings will remain the same. In this way the Ecf ensures that there will be no change in SAP due to fuel price changes alone.

In the published SAP 2005 procedure, a deflator is published for the whole of the UK. However, when examining Northern Ireland alone, it is not particularly suitable. The published UK deflator is calculated by assuming that the fuel mix is dominated by mains gas (and mains gas prices).

However, in Northern Ireland, fuel oil is dominant and mains gas is a relative minority fuel. Therefore, in the calculation of the NIHCS SAP05 ratings, a new deflator with a value of 0.75 has been used. The deflator has been calculated by examining the mix of fuels used across all households in Northern Ireland in 2006 (using the NIHCS 2006 data) and looking at the average spend on each fuel using 1996 and 2005 SAP prices.

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